DETAIL SUPPLEMENT NO.	MUNICIPALITY	DETAIL TITLE	REVISED
200	MAG	Backfill, Pavement and Surface	1-03-2002
		Replacement	
200M-AJ	AJ	Backfill, Pavement and Surface Replacement	12-2002
C-110	СН	Pavement Cut&Patch & Joint/Cut Sealant	01-11-02
45	GI	Backfill, Pavement and Surface Replacement	1-2005
G-317	GL	Pavement Joint/Cut Sealant Detail	6-2002
G-319	GL	Standard Detail for Asphalt Replacement When Trenching in Asphalt	6-2002
G-3200	GO	Backfill, Pavement and Surface Replacement	7-1997
M-19.4 SHT.1 of 2	ME	Standard Trench Backfill Detail Arterial, Collector, & Local	01-01-2004
M-19.4 SHT 2 of 2	ME	Standard Trench Backfill Detail Notes	02-02-2002
M-19.5	ME	Standard Trench Backfill Detail (For trenches within future or new roadway prisms and alleys)	09-19-2002
P1200	PH	Trench Backfill and Surface Replacement	6-27-2001
2200	SC	Pavement Replacement	7-15-03
T-446	TE	Manhole Grade Adjustment	2001
T-450	TE	Trench Backfill and Pavement Replacement	2005
201	MAG	Pavement Section at	
		Termination	
2201	SC	Trench Bedding and Backfill	4-30-04
202	MAG	Alley Details (Paved and Unpaved)	
C-251	СН	Alley Pavement Lot Drainage From Alley	
C-252	СН	Alley Pavement Lot Drainage to Alley	
P1018	PH	Access Road Termination at Alleys	07-03-00
203	MAG	Scuppers	
500	СН	Scupper	11-19-1999
204	MAG	Equipment Crossing	

January 2007 Page 1 of 21

205	MAG	Paved Turnouts	01-01-2006
43	GI	Temporary Turnaround	
252-2	PE	Alternative Turnarounds	02-28-2001
###	PE	WB50 – Turnarounds	11-30-2001
P1022	PH	Temporary Turnaround Easement	
206-1	MAG	Concrete Scupper	
206-2	MAG	Concrete Scupper	
210	MAG	Residential Speed Hump	01-01-2006
C-234	СН	Speed Hump	1-11-2002
C-235	СН	Modified Valley Gutter for Speed Control	1-11-2002
M-15.1	ME	Speed Hump Striping White Chevrons	02-07-2006
M-15.2	ME	14' and 22' Speed Hump Specifications	01-13-2003
P1280	PH	Traffic Calming Devices-New Construction Local Street Football Adjacent Sidewalk and Roll Curb	08-08-03
P1281	PH	Traffic Calming Devices – New Construction Local Street Football	08-08-03
P1282	PH	Traffic Calming Devices – New Construction Local Street Baseball Adjacent Sidewalk	08-08-2003
P1283	PH	Traffic Calming Devices-New Construction Local Street Baseball Detached Sidewalk	08-08-2003
P1284	PH	Traffic Calming Devices-New Construction Local Street Choker Adjacent Sidewalk	08-08-2003
P1285	PH	Traffic Calming Devices – New Construction 16' Local Street Choker Detached Sidewalk	08-08-2003
P1286	PH	Traffic Calming Devices-New Construction 16' Local Street Chicane Adjacent Sidewalk	08-08-2003
P1287	PH	Traffic Calming Devices – New Construction 16' Local Street Chicane Detached Sidewalk	08-08-2003
P1288	PH	Traffic Calming Devices – New Construction Local Street Semi- Diverter Adjacent Sidewalk	08-08-2003
P1289	PH	Traffic Calming Devices – New Construction Local Street Semi- Diverter	08-08-2003
2292-1	SC	Speed Table Details	05-04-2005

January 2007 Page 2 of 21

2292-2	SC	Speed Table Details	05-05-2005
2293	SC	Mid-Block Pedestrian Table	04-29-2005
2294	SC	Intersection Pedestrian Table	04-29-2005
2295	SC	Pedestrian Refuge	05-05-2005
211	MAG	Standard Trench Plating Detail	
C-106	СН	Standard Trench Plating	11-19-1999
46	GI	Trench Plating	1-2005
G3202	GO	Steel Cover for Open Trenches	07-1997
149	PE	Trench Plating	07-15-98
P1105	PH	Steel Cover for Open Trenches	07-09-1992
P1170	PH	Trenching Steel Plate	07-29-1992
2202	SC	Trench Plating	04-25-2002
212	MAG	Utility Pothole Repair	01-01-2005
G-691	GL	Backfill & Asphalt Replacement Standard for Utility Potholes	
M-18.2	ME	Temporary Pothole Protection in Arterial Streets	03-24-2003
T456	TE	Permanent Backfill and Asphalt Replacement for Utility Potholes	
220	MAG	Curb and Gutter Types A, B, C and D	
2220	SC	Curb and Gutter Types A and B	04-07-2000
T-350	TE	Vertical Curb Returns on Ribbon Curb Streets	2004
221	MAG	Curb and Gutter (Transition, Integral and Warning Beacon)	
2221	SC	Curb and Gutter Types M & W	03-28-02
222	MAG	Single Curb – Types A, B and Termination	01-03-2002
223	MAG	Median Nose Transition	
M-16	ME	Raised Median Openings	02-24-2006
2225	SC	Median Nose and Reverse Curve Details	03-28-02
2226	SC	Median Nose Details	03-28-02
224	MAG	Joint and Drainage Inlets and Manhole Covers	
225	MAG	Concrete Pavers	01-01-2005
C-236	CH	Interlocking Paving Blocks and	11-19-1999
C-230		Decorative Concrete Traveled Surface	11-17-1777
C-237	СН	Interlocking Paving Blocks and Decorative Concrete Non-Traveled Surface	11-19-1999
C-238	СН	Decorative Concrete at Grade-	
	-		1

January 2007 Page 3 of 21

		Traveled Surface	
G-328	GL	Paving Blocks for Medians	06-2002
G-329	GL	Paving Blocks for Public Streets	06-2002
		and Crosswalks	
G-3220	GO	Median Concrete Pavers	
2237	SC	Sidewalk Pavers (Non-Traffic	
		Bearing)	
2238	SC	Concrete Paver Crosswalk	02-21-2001
2239	SC	Median Concrete Pavers	02-26-2001
230	MAG	Sidewalks	01-01-2003
42	GI	Meandering Sidewalk	01-2005
43	ME	Detached Sidewalk on Arterial and	01-10-2006
		Collector Streets	
P1230	PH	Sidewalks	08-08-2003
T-345	TE	Typical Sidewalk Alignment	2005
T-351	TE	South Tempe Overlay District	2005
		Sidewalk Details	
T-353-1	TE	Brick Sidewalk and Tree Grate	2000
		Sheet 1 of 2	
T-353-2	TE	Brick Sidewalk and Tree Grate	2000
		Sheet 2 of 2	
231	MAG	Sidewalk Ramps – Type A	01-01-2006
AJ-PW232	AJ	Sidewalk Ramps with Roll Curb	09-1999
2031-A	MC	Sidewalk Ramp Arterial	06-01-2005
2021 D	1.69	Intersections	0.5.01.05
2031-В	MC	Sidewalk Ramp Residential and	06-01-05
N. 4.4	ME	Collector Intersections	02.10.2006
M-44	ME	Sidewalk Ramps – Type A	02-10-2006
M-44.1	ME	Typical ADA Push Button Access Pad Details	02-17-2005
2235-1	SC	Mid-Block Sidewalk Ramp Type	05-25-2005
		A	
T-324	TE	Diagonal Ramps – Type A	2005
232	MAG	Sidewalk Ramps – Type B	01-01-2006
2232	SC	Directional Sidewalk Ramps	05-25-2005
2235-2	SC	Mid-Block Sidewalk Ramp Type	05-25-2005
		В	
T-326	TE	Blended Transition Ramps – Type B	2005
233	MAG	Sidewalk Ramps – Type C	01-01-2006
AJ-PW233	AJ	Sidewalk Ramp with Roll Curb	04-2000
C-244	СН	Sidewalk Ramp at Intersections for	11-19-199
2022 4	MC	Roll Curbs Sidewalk Ramp Arterial Streets	06-01-2005
2032-A	IVIC	Sidewark Kamp Arterial Streets	00-01-2003

January 2007 Page 4 of 21

2032-В	MC	Sidewalk Ramp Residential and Collector Streets	06-01-2005
P1235	PH	Sidewalk Ramp Detail –Type C	07-19-2004
P1235-1	PH	Sidewalk Ramp Detail (Type C Modified Detached Sidewalk)	08-08-2003
234	MAG	Sidewalk Ramps – Type D	01-01-2006
	AV	Sidewalk Ramp Detail	
	AV	Sidewalk Ramp Detail	
	AV	Depressed S/W & Curb Detail	
C-243	СН	Sidewalk Ramp For Roll Curb	1-11-2002
P1231	PH	Apron Joints	08-08-2003
P1236	PH	Mid-Block Ramp with 4" Roll Curb	08-08-2003
P1238	PH	Sidewalk Ramp Detail 25' or 30' Radius Curb Return	07-19-2004
P1240	PH	Sidewalk Ramp Detail 35' Radius Curb Return	07-19-2004
P1241-1	PH	Sidewalk Ramp Detail 20' Radius Curb Return	07-19-2004
P1241-2	PH	Sidewalk Ramp Detail with Limited R/W	07-19-2004
P1241-3	PH	Single Sidewalk Ramp Detail 20' Radius Curb Return	07-19-2004
P1242	PH	Sidewalk Ramp Detail 4" Vertical Curb Return	07-19-2004
2234	SC	Shared Curb Sidewalk Ramp	05-25-2005
T-322	TE	Mid-Block Ramp for 4", 6" and 7" Curb	2004
T-328	TE	Preferred Directional Sidewalk Ramps Detail 25', 30' Radius Curb Returns	2004
T-349	TE	Sidewalk and Ramp at Street Intersections Where Directional Ramps are Not Possible	
240	MAG	Valley Gutter	01-01-2003
C-233	СН	Valley Gutter	11-19-1999
G-340	GL	6' Wide Valley Gutter	06-28-2002
2240	SC	6' Valley Gutter and Apron	05-10-2005
250	MAG	Driveway Entrances	01-01-2006
250M-AJ	AJ	Driveway Entrances	09-1999
	AV	Typ. Driveway Locations	
C-228	СН	Typical Driveway Access to Private Gated Community	
C-245	СН	Combined Sidewalk Ramp and	01-11-2002

January 2007 Page 5 of 21

		Residential Driveway	
M-42	GI	Commercial Driveway	01-2005
G454	GL	Driveway Criteria	06-27-2002
G-3254-1	GO	Residential Driveways	07-1997
G-3254-2	GO	Commercial/Industrial Driveways	07-1997
		– Type CH	
G-3254-3	GO	Commercial/Industrial Driveways	07-1997
		– Type CI	
G-3258	GO	Non-Residential Driveway Grade	07-1997
		Standards	
2033	MC	Wing Type Driveway/Alley	05-12-2002
		Entrances with Attached Sidewalk	
2034	MC	Wing Type Driveway/Alley	05-12-2002
		Entrances with Detached Sidewalk	
M-40.1	ME	Residential Driveway Entrance –	02-10-2006
		Type I (Sidewalk Adjacent to	
		Curb)	
M-40.2	ME	Residential Driveway Entrance –	01-01-2004
		Type 2 (Detached Sidewalk)	
M-40.3	ME	Residential Driveway Entrance –	09-03-1998
		Retrofit Only	
M-42	ME	Commercial, Industrial and	02-21-2006
		Apartment Driveway Detail	
M-42.1	ME	Typical Driveway Access to	01-05-1999
		Private Gated Community Without	
3.5.40.0	2.55	Mail Box Area	01.07.1000
M-42.2	ME	Typical Driveway Access to	01-05-1999
		Private Gated Community with	
250	DE	Mail Box Area	07.12.1000
259	PE	Driveway Criteria	07-13-1998
P1021	PH	Private Driveway (Street)	07-09-1992
P1164	PH	Maximum Driveways & Alleys	05-31-1994
D1044	DII	Slope	07.10.2004
P1244	PH	Driveway-Pedestrian Ramp	07-19-2004
		Combination (For use at T Type	
D1255 1	DII	Intersections)	07.10.2004
P1255-1	PH	Driveway Entrance – Type 1	07-19-2004
P1255-2	PH	(Sidewalk Adjacent to Curb)	07-19-2004
F1233-2	LU	Driveway Entrance Type II (Detached Sidewalk)	07-19-2004
P1255-3	PH	Driveway Entrance – ADA	08-08-2003
11433-3	111	Retrofit	00-00-2003
P1255-4	PH	Driveway Widths Policy	08-08-2003
2250	SC	Driveway Widths Folicy Driveway Entrances	05-10-2005
2230	SC.	Direway Linualices	03-10-2003

January 2007 Page 6 of 21

2255	SC	Residential Driveways	05-10-2005
2256	SC	Commercial/Industrial Driveways – Type CL	05-10-2005
2257	SC	Commercial/Industrial Driveways – Type CH	05-10-2005
2258	SC	Commercial/Industrial Driveways – Type CI	05-10-2005
T-320	TE	Driveway Entrances	2005
T-321	TE	Private Entrance with Median Island	2004
251	MAG	Return Type Driveways	01-01-2003
G-456	GL	Return Type Driveways with Detached Sidewalk	06-28-2002
G-458	GL	Return Type Driveways with Attached Sidewalk	06-28-2002
G-3250	GO	Return Type Driveways for Handicap Access	07-1997
G-3251	GO	Return Type Driveways with Detached Sidewalk	07-1997
2035	MC	Return Type Driveways with Attached Sidewalk	05-12-2002
2036	MC	Return Type Driveways with Attached Sidewalk	05-12-2002
253	PE	Return Type Driveways with Attached Sidewalk	11-03-2000
254	PE	Return Type Driveways with Detached Sidewalk	11-03-2000
P1243	PH	Return Type Driveways with Attached Sidewalk	07-19-2004
T-319	TE	Return Type Driveways	2005
T-348	TE	Sidewalk Scoop Ramp Detail for Return Type Driveways	2005
252	MAG	Bus Bays	01-01-2005
C-230	CH	Concrete Bus Bays	1-11-2002
G-406	GL	Bus Bay Detail	06-27-2002
M-45.1	ME	Bus Pullout Detail	02-10-2006
252-1	PE	Bus Bay Detail	02-28-2001
P1256-1	PH	Bus Bay (Type 1)	08-08-2003
P1256-2	PH	Bus Bay (Type 2)	08-08-2003
P1257	PH	Bus Bay (Type 3)	07-19-2004
2266-1	SC	Closed End Bus Bay – Type A	04-19-2005
2266-2	SC	Closed End Bus Bay – Type B	04-19-2005
2267	SC	Far – Side Bus Bay	01-04-1993
T-654 10 of 12	TE	Standard Mid-Block & Far Side	2005
	1		

January 2007 Page 7 of 21

		Bus Pullout	
260	MAG	Alley Entrance (With Combined	01-01-2006
		Curb and Gutter)	
261	MAG	Alley Entrance (With Roll Type	01-01-2006
		Curb and Gutter)	
262	MAG	Wing Type Alley Entrance (With	01-01-2006
		Combined Curb and Gutter)	
263	MAG	Wing Type Alley Entrance (With	01-01-2002
		Roll Type Curb and Gutter)	
270	MAG	Frame and Cover	01-01-2001
422M-AJ	AJ	Sewer Manhole and Cover Frame	05-2002
		ADJ	
P1270	PH	Frame and Cover and Grade	08-08-2003
		Adjustment	
P1270-1	PH	Secure Valve Box Lid (Type A)	06-27-2001
2270	SC	Frame and Cover Grade	02-24-2001
		Adjustment	

Series 200- Street Information – Miscellaneous Detail Supplements

ENGINEERED U	TILITY BORES		
G-320	GL	Engineered Utility Bore	06-28-2002
M-18	ME	Engineered Utility Bores	03-01-2003
		Perpendicular to Center Line of	
		Street	
M-18.1	ME	Engineered Utility Bore Parallel to	03-07-2003
		Center Line of Street	
T-455	TE	Engineered Utility Bore	
BUS			
SHELTERS			
M-45.2	ME	Standard Bus Shelter-Elevations,	01-01-2001
		Sht. 1 of 6	
M-45.3	ME	Standard Bus Shelter Details	01-01-2001
M-45.4	ME	Standard Bus Shelter Roof and	01-01-2001
		Frame Section	
M-45.5	ME	Standard Bus Shelter Details	01-01-2001
M-45.6	ME	Sunscreen for Standard Bus	02-15-2005
		Shelter Plans & Elevations	
M-45.7	ME	Sunscreen for Standard Bus	02-15-2005
		Shelter Details & Sections	
P1258	PH	Bus Shelter Pad Location (Bus	05-31-1994
		Stop)	
P1260	PH	Bus Shelter Accessory Pad Bus	07-19-2004
		Stop	

January 2007 Page 8 of 21

P1261	PH	Bus Shelter Accessory Pad Bus Bay	07-19-2004
P1262	PH	Parkway Bus Shelter/Accessory Pad	07-19-2004
P1263-1	PH	Bus Shelter Accessory Pad Frontage Road Mid-Block	06-27-2001
P1263-2	PH	Parkway Bus Shelter/Accessory Pad	07-03-2000
2265-1	SC	Bus Shelter	
2265-2	SC	Bus Shelter	
2265-3	SC	Bus Shelter	
2265-4	SC	Bus Shelter	
2265-5	SC	Bus Shelter	
2265-6	SC	Bus Shelter	
2265-7	SC	Bus Shelter	
2268	SC	Base Slab and Foundations for Bus Stop Bench and Receptacles	07-01-1997
2269	SC	Transit Shelter Pad	07-01-1997
T-654 1 of 12	TE	Standard Bus Shelter – Elevations	2005
T-654 2 of 12	TE	Standard Bus Shelter – Roof Plan	2001
T-654 3 of 12	TE	Standard Bus Shelter – Floor/Foundation Plan	2001
T-654 4 of 12	TE	Standard Bus Shelter – Roof Sections	2001
T-654 5 of 12	TE	Standard Bus Shelter – Connection Details 1-3	2001
T-654 6 of 12	TE	Standard Bus Shelter – Connection Details 4-6	2005
T-654 7 of 12	TE	Standard Bus Shelter – Connection Details 7-9	2001
T-654 8 of 12	TE	Standard Bus Shelter – Steel Drinking Fountain	1999
T-654 9 of 12	TE	Standard Bus Shelter – Foundation Location Options and Special Curb and Gutter	2005
T-654 11 of 12	TE	Special Notes and Shelter Easement	1999
T-654 12 of 12	TE	Standard Bus Shelter – Power and Light Detail	1999
MAILBOXES			
2065	MC	Mailbox Installation for Curb Section Without Sidewalk	06-04-2002
2067	MC	Mailbox Installation for Shoulder Section	06-04-2003

January 2007 Page 9 of 21

2069	MC	Recommended Mailbox Clearance at Intersections	06-04-2003
2070	MC	Typical Mailbox Turnout	06-04-2003
SIDEWALK I	RAMP RETROI		
2030-A	MC	Sidewalk Ramp Retrofit – Method A	06-01-2005
2030-В	MC	Sidewalk Ramp Retrofit – Method B	06-01-05
2233-1	SC	Directional Sidewalk Ramp Retrofit – Type A	05-25-2005
2233-2	SC	Directional Sidewalk Ramp Retrofit – Type B	05-25-05
CUL-DE-SAC	CS C	Titutin Type 2	
C-232	CH	Cul-De-Sac	11-19-1999
41	GI	Cul-De-Sac	01-2005
SIGHT DISTA		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
C-246	СН	Sight Distance	11-19-1999
C-247	СН	Sight Distance for Low Speed Local or Collector Streets	11-19-1999
C-248	СН	Key Lot Sight Distance	11-19-1999
92	GI	Sight Distance at Uncontrolled Intersections	08-02-1996
93	GI	Sight Distance at Controlled Intersections	08-02-1996
G-321	GL	Corner Radii Dedications and View Easements	06-28-2002
G-447	GL	Unobstructed View Easements for Local Streets	06-27-2002
G-448	GL	Sight Distance Requirements for Arterial and Collector Street Intersections	06-27-2002
158	PE	Sight Distance Requirements for Arterial and Collector Streets	07-02-1998
159	PE	Unobstructed View Easement Requirements for Streets	07-02-1998
DETECTABL	E WARNING N	•	
205	GI	Detectable Warning Mat	
2231	SC	Detectable Warning Surface	05-25-2005
T-329	TE	Detectable Warning	2004
BASECOURS	E DEPTH		
C-239	СН	Depth of Base Course Major and Minor Arterials	11-19-1999
C-240	СН	Depth of Base Course Non Residential Collector and Local	11-19-199

January 2007 Page 10 of 21

		Streets	
C-241	СН	Depth of Base Course Residential Collector Streets	11-19-1999
C-242	СН	Depth of Base Course Residential Local Streets	11-19-1999
33	GI	Depth of Base Course	01-2005
34	GI	Depth of Base Course	01-2005
35	GI	Depth of Base Course	01-2005
36	GI	Depth of Base Course	01-2005
P1102	PH	Depth of Base Course Residential Street	
P1103	PH	Depth of Base Course (Local Commercial & Light Industrial Streets	
P1104	PH	Depth of Base Course (Major and Heavy Industrial Streets	
T-303	TE	Depth of Base Course L-1 Streets	1998
T-304	TE	Depth of Base Course L-2 and C-1 Streets	1998
T-305	TE	Depth of Base Course C-2 Streets	1998
T-306	TE	Depth of Base Course (A-1, A-2 and Heavy Industrial Streets)	1998
TYPICAL S	TREET CROSS SI	ECTIONS	
	AJ	Street Standards	
C-203	СН	Major Arterial Street – Typical Cross Section	01-11-2002
C-204	СН	Phased Major Arterial Street – Typical Cross Section	01-11-2002
C-205	СН	Minor Arterial Street – Typical Cross Section	01-11-2002
C-206	СН	Collector Street with Median Typical Cross Section	01-11-2002
C-208	СН	Industrial Collector Street – Typical Cross Section	11-19-1999
G 200		1 21	-
C-209	СН	Residential Collector Boulevard Typical Cross Section	11-19-1999
C-209 C-210	CH CH	Typical Cross Section Residential Collector Street	11-19-1999
		Typical Cross Section	
C-210	СН	Typical Cross Section Residential Collector Street Typical Cross Section Local Street With Median Type	11-19-1999

January 2007 Page 11 of 21

		Section	
C-214	СН	Agrarian Collector Street – Typical	11-19-1999
		Cross Section	
C-215	СН	Agrarian Local Street – Typical	11-19-1999
		Cross Section	
C-216	СН	Ocotillo Major Arterial	01-11-2002
C-217	СН	Ocotillo Minor Arterial	01-11-2002
C-218	СН	Ocotillo Collector Street	01-11-2002
C-219	СН	Ocotillo Entry Road	01-11-2002
C-221	CH	Local Boulevard with Frontages of	11-19-1999
		65' to 90' Typical Cross Section	
C-222	CH	Local Boulevard with Frontages	11-19-1999
		Greater than 90' Typical Cross	
		Section	
C-223 page 1	СН	Standard Major Arterial/Major	01-11-1999
		Arterial Intersection Right-of-	
		Way, And Street Dimensions	
C-223 page 2	СН	Standard Major Arterial/Major	01-11-1999
		Arterial Intersection Right-of-	
G 224	CII	Way, And Street Dimensions	01.11.0000
C-224	CH	Major Arterial – Deceleration Lane	01-11-2002
21	GI	Major Arterial Street	01-2005
22	GI	Minor Arterial Street	01-2005
23	GI	Major Collector Street	01-2005
24	GI	Residential Collector	01-2005
25	GI	Industrial Collector Street	01-2005
26	GI	Local Industrial Street	01-2005
27	GI	Local Street	01-2005
28	GI	Agrarian Street	01-2005
G-300	GL	Arterial Street Section and Right-	06-28-2002
		of-Way Map	
G-302	GL	Arterials W/4 Lanes and Turn	06-28-2002
G 202		Lanes Major Arterials W/6 Lanes	0.5.00.000
G-303	GL	Arterials or Major Arterials	06-28-2002
G-304	GL	Standard Single Family	06-28-2002
G 205	G	Residential Collector Streets	0 < 20 2002
G-305	GL	Standard	06-28-2002
		Commercial/Industrial/Multifamily	
G 206	CI	Collector Streets	06.20.2002
G-306	GL	Local Street Section	06-28-2002
G-3120	GO	Typical Cross-Section for Street	07-2001
		Classification City & Scenic	
G 2122	CO	Arterial Cross-Section	07.2001
G-3122	GO	Typical Cross-Section for Street	07-2001

January 2007 Page 12 of 21

		Classification, Arterial & Major	
		Cross Sections	
G-3124-1	GO	Typical Cross-Section for Street	07-1997
		Classification, Major & Minor	
G 010 1 0		Collector Cross Sections	07.001
G-3124-2	GO	Typical Cross-Section for Street	07-2001
		Classification, Major & Minor	
G 01010		Collector Cross Sections	0= 100=
G-3124-3	GO	Typical Cross-Section for Street	07-1997
		Classification, Major & Minor	
G 010 (1	90	Collector Cross Sections	07.2000
G-3126-1	GO	Typical Cross-Section for Street	07-2000
		Classification – Residential Street	
G 010 (0	90	Cross Section	05.000
G-3126-2	GO	Typical Cross-Section for Street	07-2000
G 2120		Classification	0.4.2007
G-3128	GO	Pavement Sections	04-2005
M-19.1	ME	Typical Street Section	01-01-2006
M-19.2	ME	Typical Partial Street Section	01-01-2004
M-19.3	ME	Suburban Ranch Street Section	02-01-2002
291	PE	Parkway Section	07-02-1998
292	PE	Major Arterial Street	07-02-1998
293	PE	Minor Arterial Street	07-02-1998
294	PE	Major Collector Roadways	07-02-1998
295	PE	Major Secondary Collector	07-02-1998
296	PE	Industrial/Commercial/Multi-	12-26-2000
		Family Roadway	
297	PE	Minor Collector Roadways	07-02-1998
298	PE	Local Roadways	07-15-1998
299	PE	Rural Streets	07-15-1998
P1010	PH	Minimum Arterial Street Cross Section	02-11-2002
P1013	PH	Minimum Collector Street Cross Sections	08-08-2003
P1014	PH	Minimum Local Street Cross	02-11-2002
11011		Sections Street Closs	02 11 2002
T-311	TE	Street Cross-Sections, (L-1, L-2)	2004
T-312	TE	Collector Street Cross-Sections,	2000
		(C-1, C-2)	
T-313	TE	Arterial Street Cross-Section, (A-1)	2000
T-314	TE	Street Intersections	1998
T-315	TE	Street Cross-Section (Ribbon Curb)	2000

January 2007 Page 13 of 21

T-316	TE	Street Cross-Section (Ribbon 2000 Curb)		
T-317	TE	Street Cross-Section (Ribbon Curb)	2000	
STANDARD UTILITY LOCATIONS				
C-200	СН	Standard Utility Locations – Arterial Streets	01-11-2002	
C-201	СН	Standard Utility Locations – Collector Streets	11-19-1997	
C-202	СН	Standard Utility Locations – Local Streets	01-11-2002	
21A	GI	Standard Utility Locations for Major Arterials	01-2005	
22A	GI	Standard Utility Locations for Minor Arterials	01-2005	
23A	GI	Standard Utility Locations for Major Collectors	01-2005	
24A	GI	Standard Utility Locations for Residential Collectors	01-2005	
25A	GI	Standard Utility Locations for Industrial Collectors	01-2005	
26A	GI	Standard Utility Locations for Local Industrial	01-2005	
27A	GI	Standard Utility Locations for Local Streets	01-2005	
28A	GI	Standard Utility Locations for Agrarian Streets	01-2005	
G-313	GL	Standard Utility Locations for Major Arterial and Arterial Streets	06-28-2002	
G-315	GL	Standard Utility Locations Collector Streets	06-28-2002	
G-316	GL	Standard Utility Locations Local Streets	06-28-2002	
G-3132	GO	Arterial & Major Arterial Utility Location	12-2000	
G-3134	GO	Minor & Major Collector Utility Location	12-2000	
G-3136	GO	Residential Utility Location	12-2000	
T-431	TE	Standard Utility Location (20'Alley	1998	
T-432	TE	Standard Utility Location (16'Alley)	1998	
T-433	TE	Standard Utility Location (12'Alley)	1998	
T-434	TE	Standard Utility Location	1998	

January 2007 Page 14 of 21

		(16'Easement)	
T-435	TE	Standard Utility Location	1998
1 .00		(12'Easement)	1,7,0
T-436	TE	Standard Utility Location (C-2	1998
1 .00		Commercial & Midsection,	1,7,0
		Collector Streets)	
T-437	TE	Standard Utility Location (C-1	2000
		Residential Collector Street)	
T-438	TE	Standard Utility Location (L-1	2000
- 100		Single Local Street)	
T-439	TE	Standard Utility Location (A-1	2000
,		Arterial Street)	
STREET LI	GHTS		
P4	AV	Street Light Standard – Round	
		Pole	
P7	AV	Street Light Standard - 35'Round	
		Pole	
P9	AV	Street Light Standard- Square	
		Decorative Pole Arterial Streets	
P10	AV	Street Light Standard-Square	
		Decorative Pole Arterial Streets	
		(Median)	
H1	AV	Street Light Standard- Pole	
		Handhole Detail 41/8"x103/8"	
		Reinforced	
PF1	AV	Street Light Standard-Embedded	
		Pole Detail	
PF3	AV	Street Light Standard-Concrete	
		Foundation Detail	
A2	AV	Street Light Standard- 8' x 3' Mast	
		Arm	
A5	AV	Street Light Standard – 6' Radius	
		Arm For Cobra Head Fixture	
F1	AV	Street Light Standard- HPS Fixture	
		Shoe Box	
F2	AV	Street Light Standard – HPS	
		Fixture Cobra Head	
PC1	AV	Street Light Standard – Photo	
		Control Detail	
FG1	AV	Street Light Standard – Fusing and	
		Grounding Detail SRP Area	
FG2	AV	Street Light Standard – Fusing and	
		Grounding Detail APS Area	
PB1	AV	Street Light Standard SRP Pull	
		Box Installation Detail	

January 2007 Page 15 of 21

PB2	AV	Street Light Standard Plastic Pull	
1 1 2		Box Detail	
PB3	AV	Street Light Standard APS Pull	
		Box Installation Detail	
A1	GI	Street Light Standard 12' X 8'	
		High Rise Arm	
A2	GI	Street Light Standard 8' x 3' Mast	01-2005
		Arm	
A3	GI	Street Light Standard 8' x 8' High	01-2005
		Rise Arm for Cobra Head Fixture	
A4	GI	Street Light Standard 3' Radius	01-2005
		Arm for Cobra Head Fixture	
A5	GI	Street Light Standard 6' Radius	01-2005
		Arm for Cobra Head Fixture	
F1	GI	Street Light Standard HPS Fixture	01-2005
F2	GI	Street Light Standards HPS Fixture	01-2005
		Cobra Head	
FG1	GI	Street Light Standard Fusing and	01-2005
		Grounding Detail SRP Area	
FG2	GI	Street Light Standard Fusing and	01-2005
		Grounding Detail APS Area	
H1	GI	Street Light Standard – Pole	01-2005
		Handhole Detail 3" x 5"	
		Reinforced	
H2	GI	Street Light Standard – Pole	01-2005
		Handhole Detail 41/8" x 10 3/8"	
		Reinforced	
P1	GI	Street Light Standard – Square	01-2005
		Decorative Pole Residential Streets	
P2	GI	Street Light Standard – Square	01-2005
		Decorative Pole Arterial Streets	
P3	GI	Street Light Standard – Square	01-2005
		Decorative Pole Arterial Streets	
_		(Median)	
P4	GI	Street Light Standard – Round	01-2005
		Pole	
P5	GI	Street Light Standard – 27' Round	01-2005
		Pole	
P6	GI	Street Light Standard – 31' Round	01-2005
		Pole	
P7	GI	Street Light Standard - 35' Round	01-2005
		Pole	
P8	GI	Street Light Standard – Post Top	01-2005
		Street Light Residential Streets	
P9	GI	Street Light Standard- Square	01-2005

January 2007 Page 16 of 21

		Decorative Pole Arterial Streets	
P9A	GI	Street Light Standard – 27' Square	01-2005
		Decorative Pole Arterial Streets	
P10	GI	Street Light Standard – Square	01-2005
		Decorative Pole Arterial Streets	
		(Median)	
P10A	GI	Street Light Standard – 35' Square	01-2005
		Decorative Pole Arterial Streets	
		(Median)	
PA1	GI	Street Light Standard – Pole	01-2005
		Number Detail	
PB1	GI	Street Light Standard – SRP Pull	01-2005
		Box Installation Detail	
PB2	GI	Street Light Standard – Plastic Pull	01-2005
		Box Detail	
PB3	GI	Street Light Standard – APS Pull	01-2005
		Box Installation Detail	
PC1	GI	Street Light Standard – Photo	01-2005
		Control Detail	
PF1	GI	Street Light Standard – Embedded	01-2005
		Pole Detail	
PF2	GI	Street Light Standard – Embedded	01-2005
		Pole Detail (Median)	
PF3	GI	Street Light Standard – Concrete	01-2005
		Foundation Detail	
G-403	GL	Conduit and Pole Base Installation	06-27-2002
		Standards Major Arterial	
		Intersection	
G-404	GL	Conduit and Pole Base Installation	06-27-2002
		Standards for Arterial and	
		Collector Street Intersections	
G-3263	GO	Street Light Pull Box &	07-1997
		Connection Details	
G-3291-1	GO	Streamline Steel Pole Details (for	07-1997
		use in areas designated by public	
		works director)	
G-3291-2	GO	Streamline Steel Pole Details (For	07-1997
		Use In Areas Designated by Public	
		Works Director)	
G-3292-1	GO	Architectural Street Light	07-1997
G-3292-2	GO	Architectural Street Light	07-1997
M-70	ME	Streetlight Work Procedures	09-23-2004
M-70.1	ME	Streetlight Luminaire Specification	01-31-2002
M-70.2	ME	Town Center Decorative	11-18-1997
		Streetlight Luminaire Specification	

January 2007 Page 17 of 21

M-70.3	ME	Town Center Decorative	07-01-2004
		Streetlight Luminaire Specification	
M-71	ME	High Pressure Sodium Lamp	11-13-1992
		Specification	
M-72	ME	Time Delay Photo Electric Control	11-12-1998
		Specification	
M-73.1	ME	Stepped Streetlight Pole	01-02-2003
		Specification	
M-73.2	ME	Tapered Streetlight Pole	01-02-2003
		Specification	
M-73.3	ME	DAVIT Streetlight Pole	01-02-2003
		Specification	
M-73.4	ME	Square Streetlight Pole	01-02-2003
		Specification	
M-73.5	ME	Town Center Decorative	01-31-2002
		Streetlight Pole Specification	
M-73.6	ME	Anchor Bolt & Copper Grounding	01-30-2002
111 73.0	1112	Plate Specification	01 30 2002
M-73.7	ME	Current Carrying and Grounding	12-22-1998
WI-73.7	IVIL	Specification	12-22-1770
M-74.1	ME	Pull and Junction Box	09-02-1993
171-74.1	IVIL		09-02-1993
M-74.2	ME	Specification Pull and Junction Box Installation	11-12-1998
M-74.2	ME		11-12-1998
N 77 1) ATT	Specification	01.02.2002
M-75.1	ME	Lighting Control Cabinet	01-02-2003
		Specification	11.07.2001
M-75.2	ME	Lighting Control Cabinet Pad	11-05-2004
		Specification and Installation	
M-75.3	ME	Service Ground Rod Detail	02-22-2006
M-75.4	ME	Grounding Detail for 120 Volt J-	06-17-2005
		Box	
M-76.1	ME	Streetlight Foundation	01-02-2003
		Specification	
M-76.2	ME	Streetlight Foundation Installation	11-15-1996
		Specification	
M-78.1	ME	Twin DAVIT Streetlight Pole	04-06-2004
		Specification	
M-78.2	ME	T Series Streetlight Pole	01-02-2003
		Specification	
M-78.3	ME	Small Tapered Streetlight Pole	01-02-2003
	1.22	Specification	21 02 2000
M-78.4	ME	Town Center Decorative	01-02-2003
111 / U. T	14117	Pedestrian Pole Specification	01 02 2003
M-79.1	ME	Mast Arm and Adaptor Plates to	01-17-1996
171-17.1	14117	Raise Luminaires on Traffic Signal	01-17-1770
		Kaise Lummanes on Traine Signal	

January 2007 Page 18 of 21

		Poles	
M-80.1	ME	Park Lighting Luminaire	
101 00.1	1412	Specification	
M-83.1	ME	Small Embedded Octagonal	
141 03.1	IVIL	Concrete Pole Specification	
M-83.2	ME	Medium Embedded Octagonal	
141 03.2	1412	Concrete Pole Specification	
M-83.3	ME	Base Mounted Octagonal Concrete	
111 00.0	1112	Pole Specification	
M-85.1	ME	Outdoor Convenience Receptacle	
112 0012	1,12	Specification	
176	PE	Interconnect Precast	12-7-2000
		Communication Pull Box	
177	PE	Interconnect #7 Communication	02-21-2001
		Pullbox	
281	PE	Conduit Installation Standards	07-02-1998
T-440	TE	Standard Utility Fixture and	1998
		Conduit Placement	
T-452	TE	In-Ground Electrical Pull Boxes	1998
		(parks)	
T-645	TE	Tempe Special District Lighting	
T-650	TE	Street Light Pull Box and	
		Connection Details	
T-651	TE	Streamline Steel Pole Details	
T-651	TE	Streamline Steel Pole Details	
T-652	TE	Architectural Street Light	
T-652	TE	Architectural Street Light	
T-653-1	TE	Special District Street Light	
T-653-2	TE	Special District Street Light	
T-656-1	TE	Multi-Use Path Lighting Details	
T-656-2	TE	Multi-Use Path at T-Intersections	
T-656-3	TE	Multi-Use Path Design and	
		Lighting Details	
T-657	TE	Dual Load Center Foundation	
		Detail	
T-658	TE	Special Rio Salado Multi-Path	
		Lighting Fixture	
OTHER DETA	ILS		
C-225	СН	General Median Design	01-11-2002
C-226	СН	"Left In Only" Median Design 16'	01-11-2002
		Wide Median	
C-227	СН	"Left In Only" Median Design 40"	01-11-2002
		Wide Median	
C-229	СН	Left Turn Bay on Two-Lane	01-11-2002

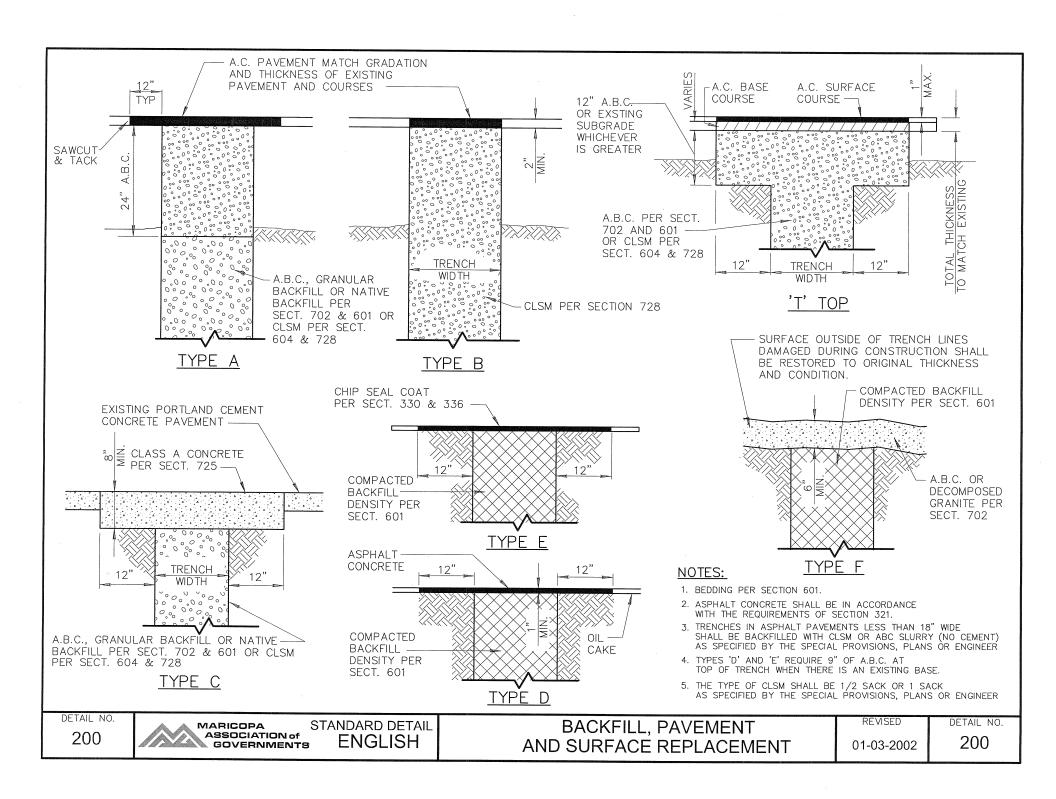
January 2007 Page 19 of 21

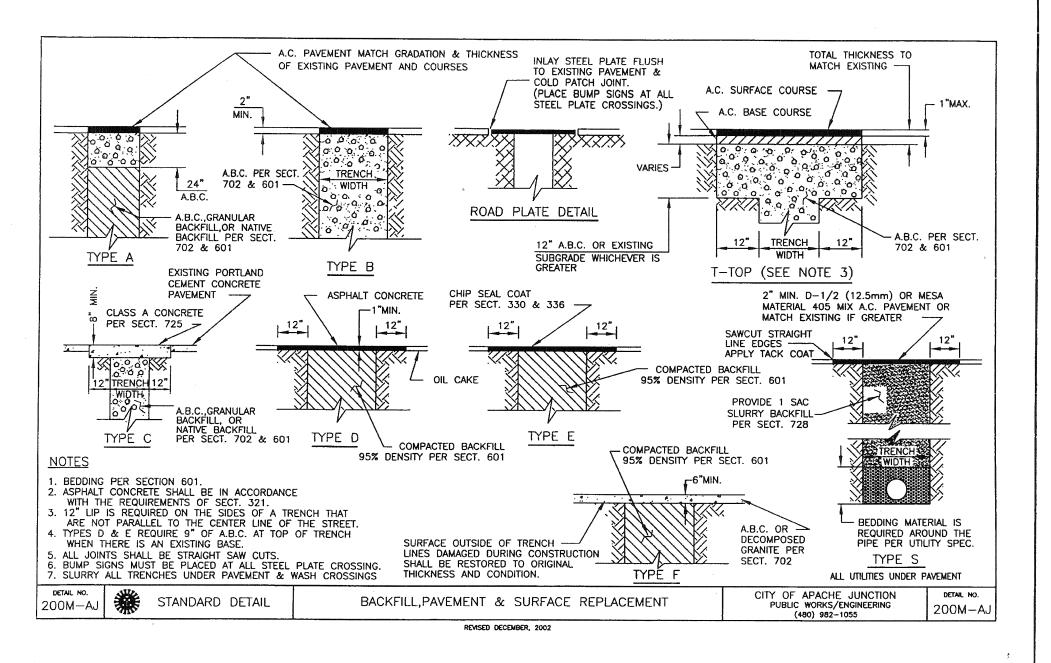
		Roadway (Temporary Widening,	
		Cross Street on One Side Only)	
C-231	СН	Right Turn/Deceleration Lane For	01-11-2002
		Driveways	
C-249	СН	Accessible Ramp Location	01-11-2002
C-250	СН	Left Turn Bay in 40' Median	11-19-1999
		Design	
C-253	СН	Decorative Concrete	11-19-1999
C-254	СН	Arterial/Collector Roadway	11-19-1999
		Landscape Drainage	
1	GI	Access Points on Major Arterials	01-2005
2	GI	Access Points on Minor Arterials	01-2005
3	GI	Access Points for Major and	01-2005
		Industrial Collectors	
4	GI	Access Points on Residential	01-2005
		Collector Streets	
5	GI	Access Points on Local Industrial	01-2005
		Streets	
6	GI	Access Points on Local and	01-2005
		Agrarian Streets	
90	GI	Right Lane Drop	08-02-1996
G-322	GL	Throat Widening For Arterial	06-28-2002
		Intersection	
G-323	GL	Throat Widening for Arterial	06-28-2002
		Intersection	
G-324	GL	Throat Widening for Collector	06-28-2002
		Intersecting Arterial	
G-325	GL	Throat Widening for Collector	06-28-2002
		Intersecting Arterial	
G-326	GL	Throat Widening for Collector	06-28-2002
		Intersecting Arterial	
G-462	GL	Bicycle Racks	
G-954	GL	360° Turning Requirements for	
		Fire Ladder Trucks	
G-3214	GO	Pavement Width Transitions	07-1997
G-3224	GO	Median Openings for Intersections	07-1997
G-3240	GO	Fire Dept. Access Roadway	07-1997
~ ~	9.5	Typical Cross Section	0= 100=
G-3241	GO	Fire Dept. Access Roadway	07-1997
~ ~	9.5	Cul-De-Sac/Modified Cul-De-Sac	0= 100=
G-3242	GO	Fire Dept. Access Roadway	07-1997
		Hammerhead/Modified	
D1016	DIA	Hammerhead	00.00.2002
P1016	PH	Right Turn Lane Design For	08-08-2003

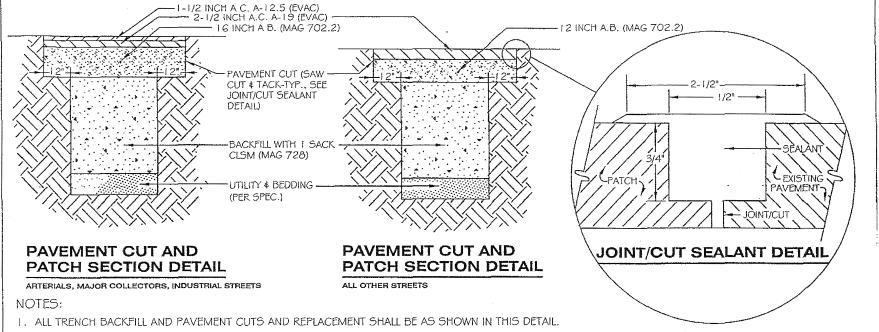
January 2007 Page 20 of 21

		Public Cross Streets	
P1016-1	PH	Right Turn Lane Design for	08-08-2003
		Driveways	
P1017	PH	Access Road Opening	07-09-1992
P1019	PH	Access Road Termination	07-09-1992
P1020-1	PH	Planned Area Development	08-06-1999
P1020-2	PH	Private Accessway	07-19-2004
P1243-1	PH	No Right Turn Lane	07-19-2004
P1243-2	PH	Right Turn Lane	07-19-2004
P1245	PH	Typical Knuckle Connection	08-08-2003
2207	SC	Residential Unpaved Road	03-28-2002
2210	SC	Grading Behind the Curb	
2228	SC	Cut-Off Wall	02-22-1999
2230	SC	Sidewalk Cutout for Utility Poles	04-12-2005
2281	SC	Multi-Use Path Crossing Sign	
2282	SC	Multi-Use Path Striping and	
		Signing	
2283	SC	Multi-Use Path Details	
2284	SC	Multi-Use Path Wet Crossing Sign	
2285	SC	Double Bicycle Rack	
2290	SC	Median Island Details	
T-354	TE	Slotted Drain	
T-578	TE	Bicycle Rack Detail	

January 2007 Page 21 of 21







- 2. PAVEMENT REMOVAL AND REPLACEMENT DETAIL SHALL BE USED ON ALL EDGES INCLUDING TRENCH ENDS EXCEPT WHERE THE EDGE IS PORTLAND CEMENT CONCRETE.
- 3. WHERE CUT IS 24 INCHES OR LESS FROM THE EDGE OF AN EXISTING PATCH, CURB AND GUTTER, CONCRETE PAVEMENT, CONCRETE CROSSWALKS AND/OR DECORATIVE PAVERS, REMOVE THE EXISTING AC BETWEEN THE CUT AND THIS EDGE AND REPLACE. THE THICKNESS OF THE REPLACEMENT PAVEMENT IN THIS AREA SHOULD BE EQUAL TO THIS DETAIL OR EXISTING AC THICKNESS, WHICHEVER IS GREATER.
- 4. PLACE AND COMPACT AB IN TWO LIFTS.
- 5 AFTER PATCH HAS BEEN SUBJECTED TO TRAFFIC FOR AT LEAST 2 DAYS, PREFERRED 2 WEEKS, BUT NOT MORE THAT 4 WEEKS, SEAL ALL JOINTS/CUTS.

JOINT/CUT SEALANT PROCEEDURE:

- 1. PREPARE JOINTS/CUTS BY ROUTING
- 2. CLEAN OUT THE PREPARED JOINT/CUT BE USING FORCED AIR (65 PSI) WITH A DOWNWARD BLAST INTO THE JOINT AND A VACUUM ATTACHMENT TO VACUUM THE DEBRIS RELEASED.
- 3. CLEANED JOINT/CUT SHALL BE FREE OF ALL DIRT, DUST, DEBRIS AND MOISTURE IMMEDIATELY PRIOR TO SEALING.
- 4. FILL JOINT/CUT WITH CRAFCO TYPE III CRACK SEAL OR EQUIVALENT AS APPROVED BY PUBLIC WORKS DEPT. IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS

DETAIL NO.

C-110

NTS

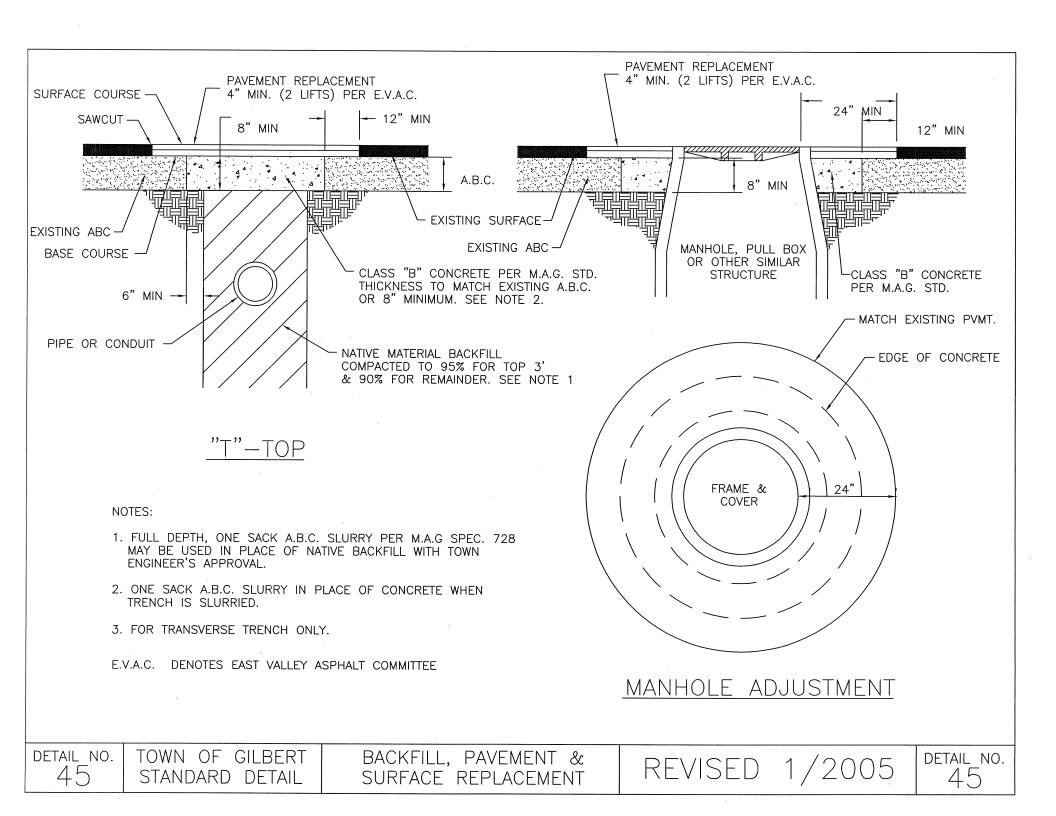


PAVEMENT CUT AND PATCH & JOINT/CUT SEALANT APPROVED: On Date Williams

DATE DATE DATE 11, 2007

DETAIL NO.

NTS

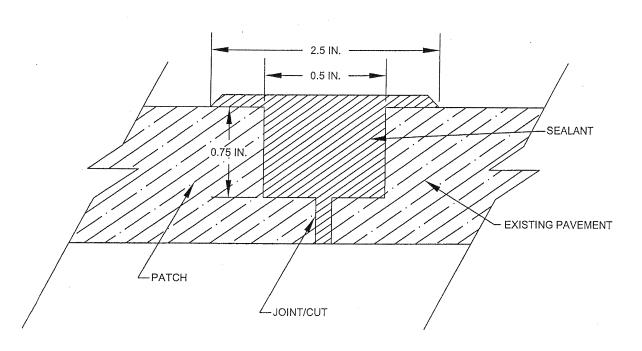


STANDARD DETAIL G-317

CITY OF GLENDALE ENGINEERING



PAVEMENT JOINT/CUT SEALANT DETAIL



N.T.S.

NOTES:

JOINT/CUT SEALANT PROCEDURE

- AFTER PATCH HAS BEEN SUBJECTED TO TRAFFIC FOR AT LEAST TWO (2) WEEKS BUT NOT MORE THAN FOUR (4) WEEKS, SEAL ALL JOINTS/CUTS.
- 2. PREPARE JOINTS/CUTS BY ROUTING.
- 3. CLEAN OUT THE PREPARED JOINT/CUT BY USING FORCED AIR (65 PSI) WITH A DOWNWARD BLAST INTO THE JOINT AND A VACUUM ATTACHMENT TO VACUUM THE DEBRIS RELEASED.
- 4. CLEANED JOINT/CUT SHALL BE FREE OF ALL DIRT, DUST, DEBRIS AND MOISTURE IMMEDIATELY PRIOR TO SEALING.
- 5. FILL JOINT/CUT WITH CRAFCO TYPE III CRACK SEAL OR EQUAL AS APPROVED BY THE CITY OF GLENDALE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

APPROVED BY:

CITY ENGINEER

6/28/02

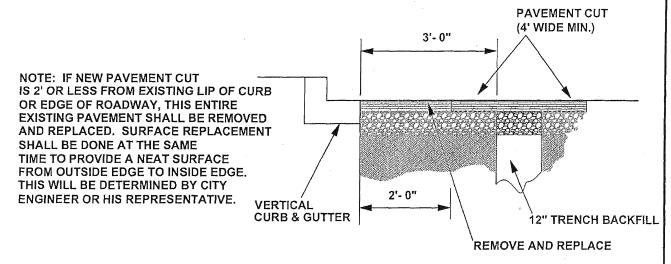
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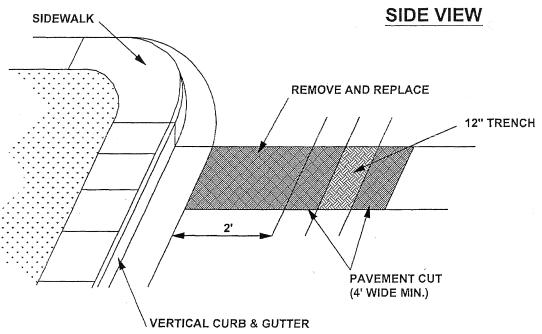
STANDARD DETAIL G-319

CITY OF GLENDALE ENGINEERING



STANDARD DETAIL FOR ASPHALT REPLACEMENT WHEN TRENCHING IN ASPHALT





AERIAL VIEW

APPROVED BY:

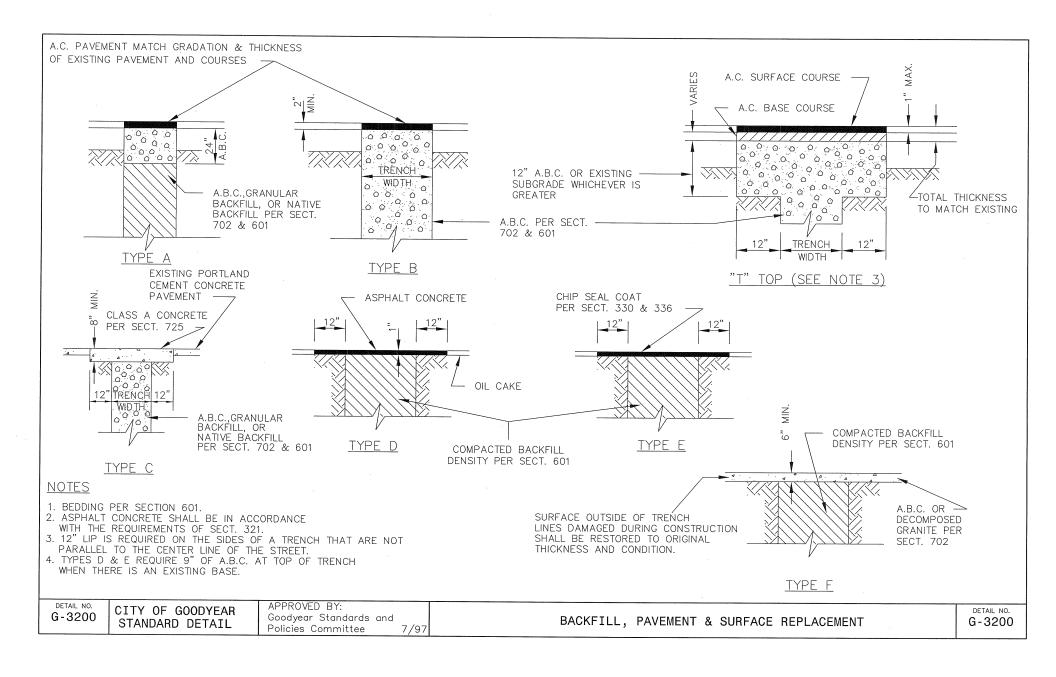
CITY ENGINEER

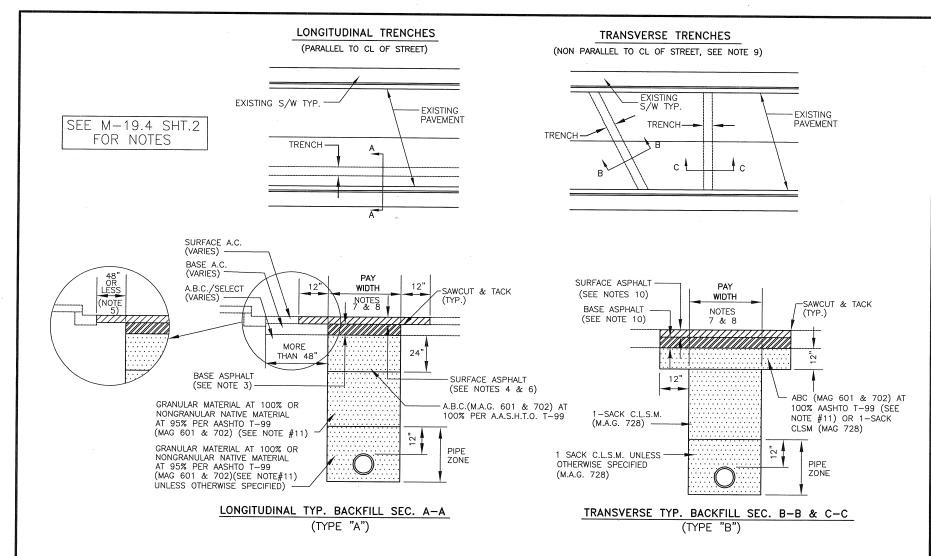
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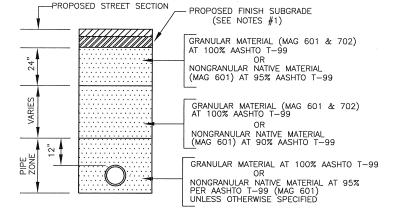
PREVIOUS:





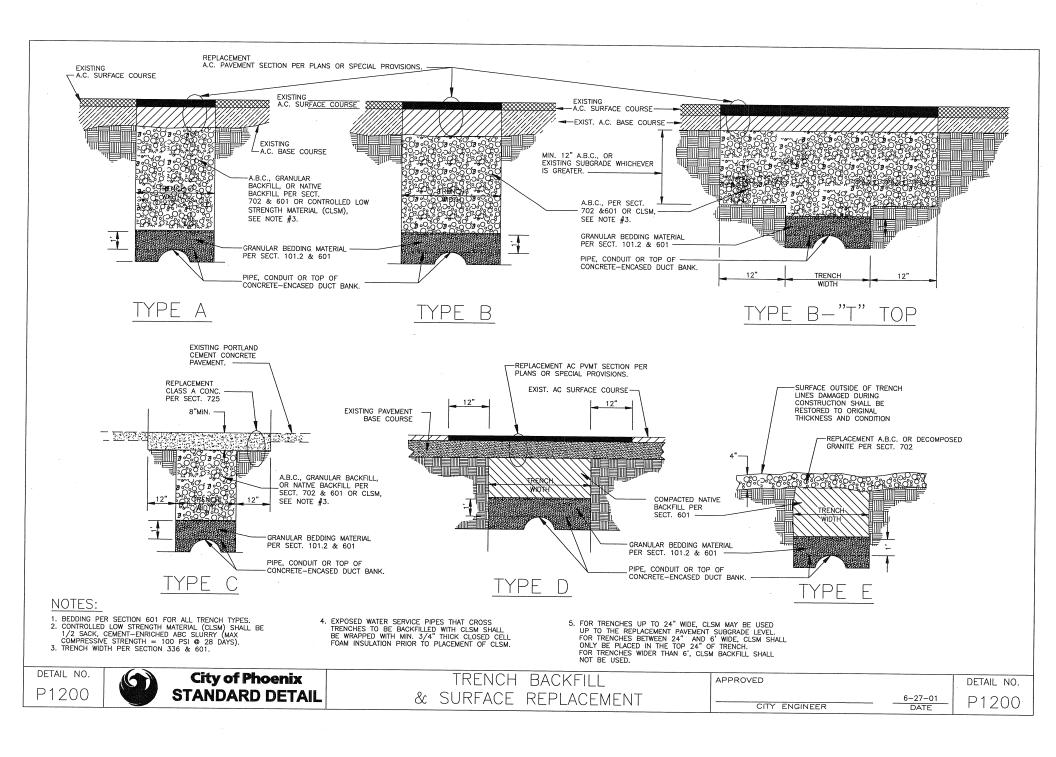
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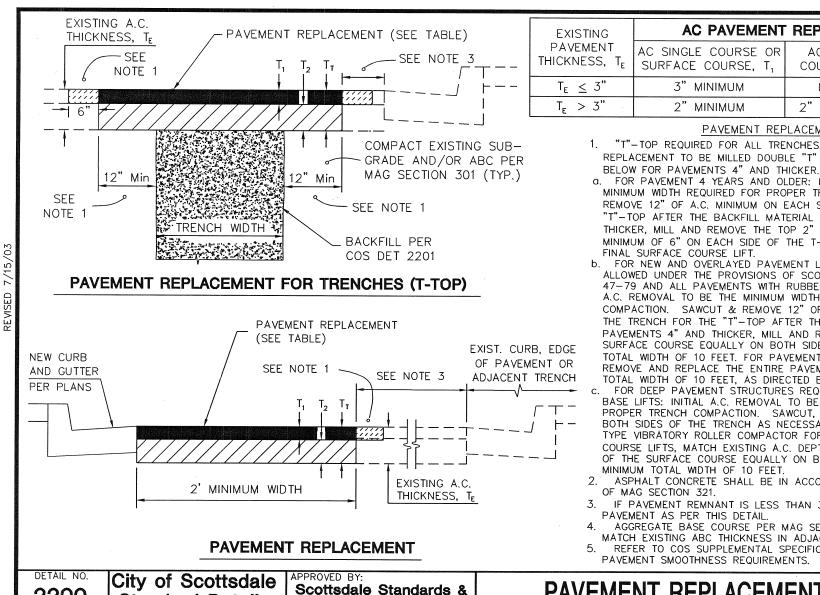
- SEE LATEST POLICY STATEMENT FOR STREET TRENCH BACKFILLING AND REPLACEMENT.
- 2. FLOODING IS ACCEPTABLE AS A WATER CONSOLIDATION METHOD AS LONG AS THE COMPACTION REQUIREMENTS ARE MET AND NOT DISALLOWED IN PLANS AND/OR SPECIAL PROVISIONS.
- 3. BASE ASPHALT SHALL BE INSTALLED TO SURFACE OF EXISTING PAVEMENT. THE THICKNESS OF THE ASPHALT SHALL BE EQUAL TO THE ADJACENT EXISTING ASPHALT HOWEVER, NOT LESS THAN THE SUM OF BOTH BASE & SURFACE COURSE ASPHALTS AS NOTED IN DETAIL M-19.1. THE TYPE OF ASPHALT CONCRETE MIX SHALL BE PER DETAIL M-19.1 OR M-19.3 EXCEPT WHEN AN A-19 ASPHALT MIX IS REQUIRED FOR A SURFACE COURSE, A 12.5 ASPHALT MIX WILL BE INSTALLED. IF THE DEPTH OF THE ASPHALT IS MORE THAN 4-INCHES, PLACEMENT SHALL BE IN TWO LIFTS.
- 4. AFTER THE BASE ASPHALT PATCH HAS BEEN SUBJECTED TO TRAFFIC FOR AT LEAST TWO (2) WEEKS BUT NOT MORE THAN THREE (3) WEEKS, MILL 1 1/2 INCHES AND REPLACE WITH SURFACE ASPHALT CONCRETE MIX. MINIMUM MILL WIDTH SHALL BE EQUAL TO THE WIDTH OF THE BASE ASPHALT PATCH PLUS 12—INCHES EACH SIDE (12" INTO EXISTING A.C.) EXCEPT FOR TYPE A-1 (ONE SIDE). SURFACE ASPHALT CONCRETE MIX SHALL BE R-12.5 OR A-12.5 AS NOTED IN DETAIL M-19.1 UNLESS OTHERWISE STATED IN THE PLANS AND/OR SPECIAL PROVISIONS. WHEN LONGITUDINAL PATCHES ARE 6' OR WIDER, THE ASPHALT SHALL BE PLACED BY A SELF PROPELLED MECHANICAL SPREADING AND FINISHING EQUIPMENT IN ACCORDANCE WITH MAG 321.5.2(A).
- 5. WHEN THIS DIMENSION IS 48-INCHES OR LESS, REMOVE AND REPLACE ALL ASPHALT CONCRETE, BOTH BASE COURSE AND SURFACE COURSE, BETWEEN THE TRENCH AND THE LIP OF GUTTER.
- 6. AFTER SURFACE ASPHALT CONCRETE HAS BEEN PLACED, ALL MANHOLES, VALVES, STRUCTURES, ETC, SHALL BE ADJUSTED TO GRADE. TRAFFIC SIGNAL DETECTOR LOOPS SHALL BE INSTALLED BEFORE SURFACE A.C. IS PLACED.
- 7. MEASUREMENT FOR PAYMENT SHALL BE PER MAG SECTION 336.4 EXCEPT FOR THE PAY WIDTH. ALL PAY WIDTHS SHALL BE COMPUTED PER SECTION 336.4 (A) AND AS SHOWN ON THIS DETAIL, UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PROVISIONS. NOTE: NO PAYMENT WILL BE MADE FOR ADDITIONAL PAVEMENT REPLACEMENT AS A RESULT OF A WIDER TRENCH EXCAVATION.
- 8. THE COST OF THE TOP 12-INCHES OF A.B.C. OR CONTROLLED LOW STRENGTH MATERIAL FOR TYPE "B" AND THE TOP 24-INCHES OF A.B.C. FOR TYPE "A" AND "A-1" SHALL BE INCLUDED IN THE PAVEMENT REPLACEMENT COST. ALSO, NO ADDITIONAL PAYMENT WILL BE MADE FOR PAVEMENT REMOVAL, MILLING AND INSTALLATION OF BOTH BASE COURSE AND SURFACE COURSE PAVEMENT BEYOND THE PAY WIDTH SHOWN IN THIS DETAIL.
- 9. SEE M.A.G. DETAIL 211 FOR REQUIREMENTS REGARDING THE USE OF PLATING OF TRANSVERSE TRENCHES.
- 10. THE TOTAL THICKNESS OF THE ASPHALT SHALL BE EQUAL TO THE ADJACENT EXISTING ASPHALT HOWEVER, NOT LESS THAN THAT SPECIFIED IN DETAILS M-19.1 OR M-19.3. THE THICKNESS OF THE SURFACE ASPHALT SHALL BE AS SHOWN ON DETAIL M-19.1 OR M-19.3. THE THICKNESS OF THE BASE ASPHALT SHALL BE THE TOTAL ASPHALT THICKNESS MINUS THE THICKNESS OF THE SURFACE ASPHALT. THE TYPE OF ASPHALT MIXES SHALL BE PER DETAILS M-19.1 OR M-19.3, EXCEPT WHEN AN A-19 ASPHALT MIX IS REQUIRED FOR A SURFACE COURSE, A 12.5 ASPHALT MIX WILL BE INSTALLED.
- 11. WHEN MECHANICALLY COMPACTING BACKFILL MATERIAL, THE BACKFILL MATERIAL SHALL BE WITHIN TWO (2) PERCENTAGE POINTS OF OPTIMUM AS DETERMINED BY AASHTO T-99 (STANDARD PROCTOR) AT THE TIME OF COMPACTION.



NOTES

- WHEN STREET ELEVATIONS ARE UNKNOWN, THE PROPOSED FINISH SUBGRADE WILL BE THE ADJACENT EXISTING GROUND ELEVATION OR AS OTHERWISE DIRECTED BY THE ENGINEER.
- 2. FLOODING IS ACCEPTABLE AS A WATER CONSOLIDATION METHOD AS LONG AS THE COMPACTION REQUIREMENTS ARE MET AND NOT DISALLOWED IN PLANS AND/OR SPECIAL PROVISIONS.
- 3. FLOOD CONSOLIDATION IS ACCEPTABLE WHEN APPROVED BY THE ENGINEER.
- 4. WHEN MECHANICALLY COMPACTING BACKFILL MATERIAL, THE MOISTURE CONTENT OF THE BACKFILL MATERIAL SHALL BE WITHIN TWO (2) PERCENTAGE POINTS OF OPTIMUM AS DETERMINED BY AASHTO T-99 (STANDARD PROCTOR) AT THE TIME OF COMPACTION.





Specifications Committee

2200

Standard Details

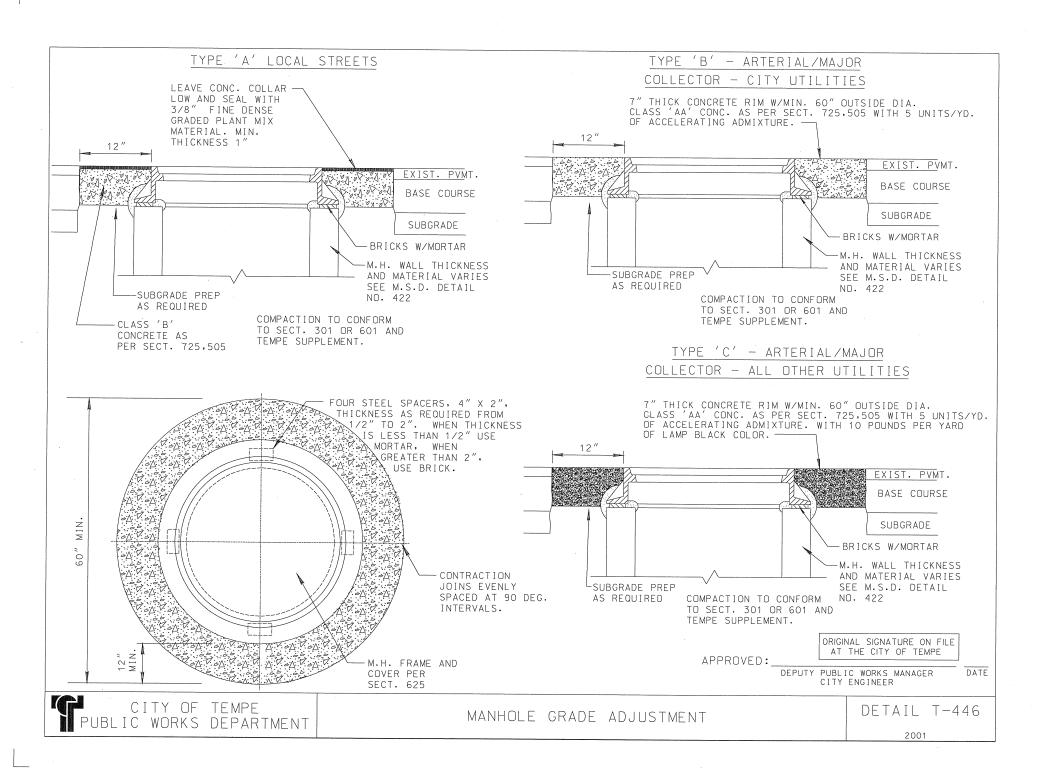
AC PAVEMENT REPLACEMENT TABLE AC BASE TOTAL COURSE, T₂ THICKNESS, TT 3" MINIMUM NONE 2" MINIMUM T (MATCH EXIST)

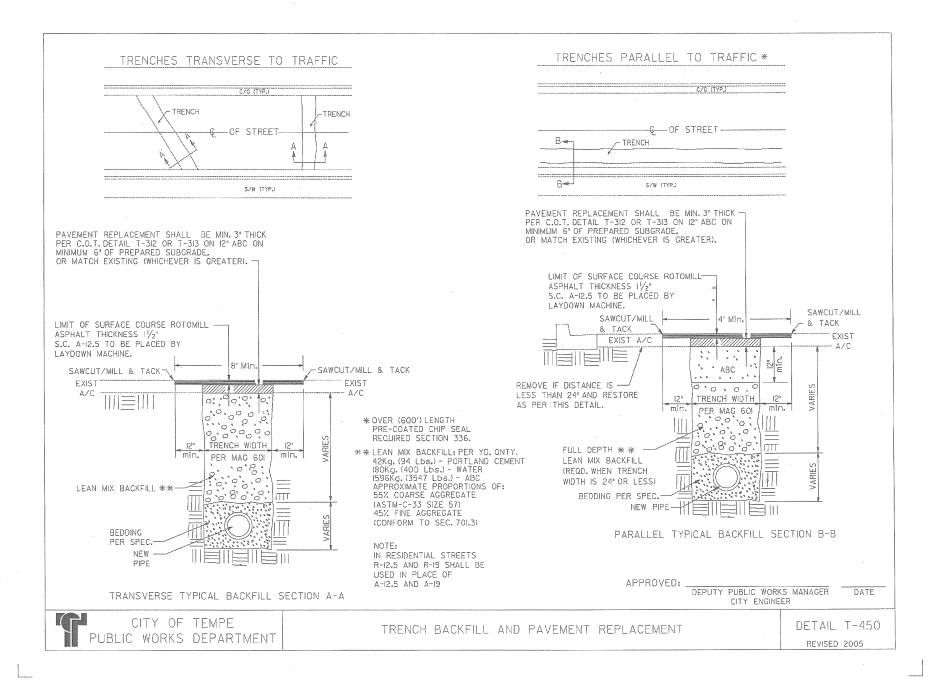
PAVEMENT REPLACEMENT NOTES

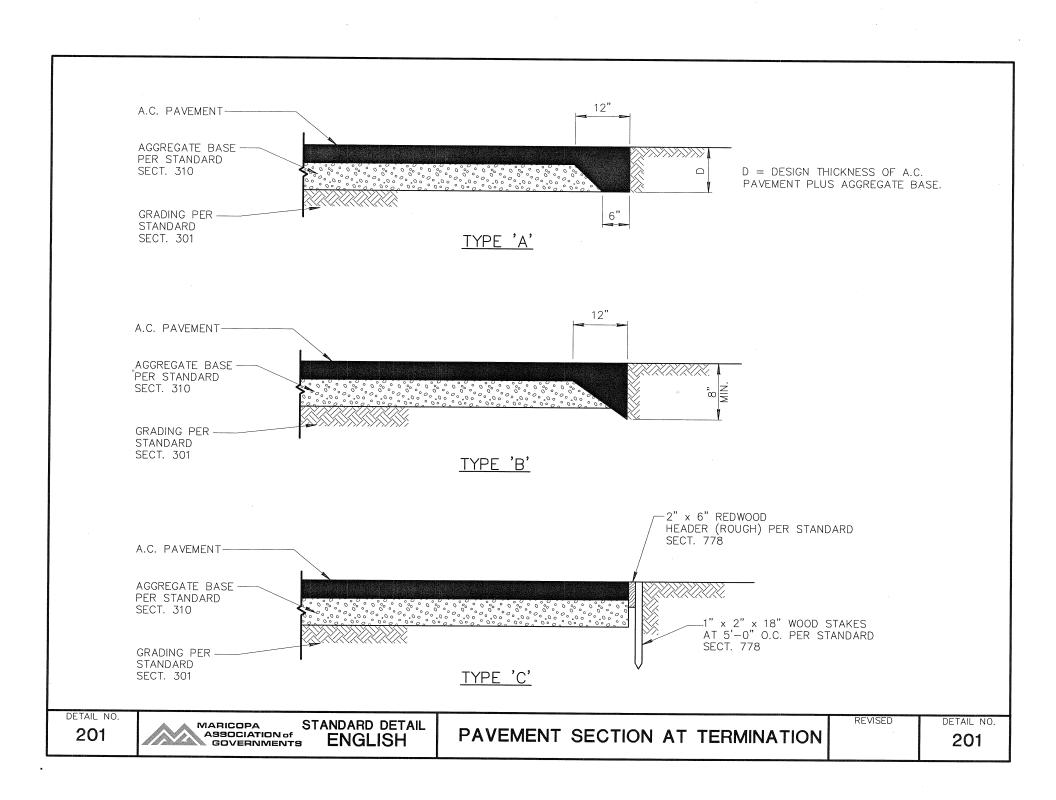
- "T"-TOP REQUIRED FOR ALL TRENCHES, A.C. SURFACE COURSE REPLACEMENT TO BE MILLED DOUBLE "T" CONFIGURATION AS SPECIFIED
- a. FOR PAVEMENT 4 YEARS AND OLDER: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION, SAWCUT & REMOVE 12" OF A.C. MINIMUM ON EACH SIDE OF THE TRENCH FOR THE "T"-TOP AFTER THE BACKFILL MATERIAL IS PLACED. PAVEMENTS 4" AND THICKER, MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE A MINIMUM OF 6" ON EACH SIDE OF THE T-TOP PRIOR TO PLACEMENT OF THE
- b. FOR NEW AND OVERLAYED PAVEMENT LESS THAN 4 YEARS OLD AND WHEN ALLOWED UNDER THE PROVISIONS OF SCOTTSDALE REVISED CODE SECTIONS 47-79 AND ALL PAYEMENTS WITH RUBBERIZED SURFACE COURSES: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION. SAWCUT & REMOVE 12" OF A.C. MINIMUM ON EACH SIDE OF THE TRENCH FOR THE "T"-TOP AFTER THE BACKFILL MATERIAL IS PLACED. PAVEMENTS 4" AND THICKER, MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE EQUALLY ON BOTH SIDES OF THE TRENCH TO A MINIMUM TOTAL WIDTH OF 10 FEET. FOR PAYEMENTS LESS THAN 4" THICK SAWCUT, REMOVE AND REPLACE THE ENTIRE PAYEMENT SURFACE TO A MINIMUM TOTAL WIDTH OF 10 FEET, AS DIRECTED BY THE ENGINEER.
- FOR DEEP PAYEMENT STRUCTURES REQUIRING TWO OR MORE PAYEMENT BASE LIFTS: INITIAL A.C. REMOVAL TO BE THE MINIMUM WIDTH REQUIRED FOR PROPER TRENCH COMPACTION. SAWCUT, REMOVE AND REPLACE A.C. ON BOTH SIDES OF THE TRENCH AS NECESSARY TO ACCOMODATE A RIDE ON TYPE VIBRATORY ROLLER COMPACTOR FOR PLACEMENT OF THE A.C. BASE COURSE LIFTS, MATCH EXISTING A.C. DEPTH. MILL AND REMOVE THE TOP 2" OF THE SURFACE COURSE EQUALLY ON BOTH SIDES OF THE TRENCH TO A
- ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS
- IF PAVEMENT REMNANT IS LESS THAN 36", REMOVE AND REPLACE
- AGGREGATE BASE COURSE PER MAG SECTION 702 SHALL BE PROVIDED TO MATCH EXISTING ABC THICKNESS IN ADJACENT ROADWAY.
- REFER TO COS SUPPLEMENTAL SPECIFICATIONS, SECTION 336,2,4 FOR

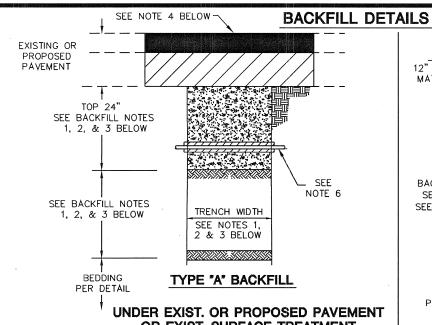
PAVEMENT REPLACEMENT

DETAIL NO. 2200







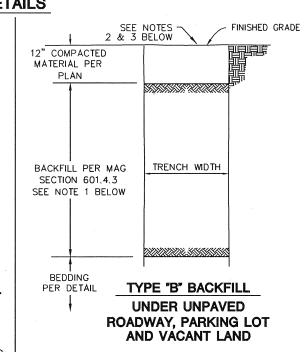


OR EXIST. SURFACE TREATMENT

BACKFILL NOTES

- 1. TRENCHES 24" IN WIDTH OR LESS 2 SACK CSLM, MAG 728, FULL DEPTH OF BACKFILL BOTTOM OF ABC LAYER IN PAVEMENT STRUCTURE OR 6" BELOW PAYEMENT IN FULL DEPTH PAYEMENT STRUCTURES. CONSTRUCT PAYEMENT STRUCTURE TO MATCH EXISTING AND IN ACCORDANCE WITH COS DETAIL 2200.
- 2. TRENCHES 24" TO 6' IN WIDTH 1 SACK CSLM AS DESCRIBED IN NOTE 1 ABOVE WITHIN THE TOP 24" OF THE TRENCH; MAG 601,4,3 FOR BALANCE OF BACKFILL.
- TRENCHES OVER 6' IN WIDTH MAG 601.4.3 FULL DEPTH OF BACKFILL. TREAT ENTIRE DISTURBED SURFACE OF UNPAYED ALLEYS WITH LIGNIN-BASED DUST PALLATIVE, MAG 792, 1:1 DILUTION RATIO, 0.50 5. GAL/SY APPLICATION RATE.
- CSLM SHALL NOT BE USED FOR WATER OR SEWER PIPE BEDDING. SEE BEDDING DETAIL.
- EXPOSED COPPER OR POLYETHYLENE WATER PIPES IN SIZES i" TO 2" SHALL BE WRAPPED WITH " WIDE BLACK INSULATION BEFORE PLACING .CSLM.

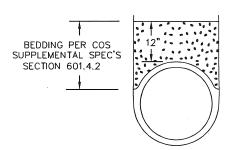
RECYCLED ASPHALT SHALL NOT BE USED FOR BACKFILL.



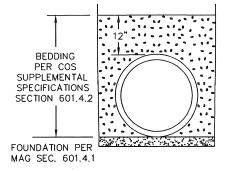
BACKFILL NOTES

- MAG 601,4,3 FULL DEPTH OF BACKFILL ENTIRE DISTURBED EXISTING SURFACE TO
- BE RESTORED WITH A LIKE MATERIAL
- TREAT ENTIRE DISTURBED SURFACE WITH LIGNIN-BASED DUST PALLATIVE, MAG 792, 1:1 DILUTION RATIO, 0.50 GAL/SY APPLICATION
- RECYCLED ASPHALT SHALL NOT BE USED FOR BACKFILL.

BEDDING DETAILS



BEDDING DETAIL CAST-IN-PLACE PIPE



BEDDING DETAIL ALL OTHER PIPE

- 1. FOR HDPE PIPE SEE COS SUPPLEMENTAL SPECIFICATIONS SECTION 603.4.2
- 2. RECYCLED ASPHALT SHALL NOT BE USED FOR BEDDING OR FOUNDATION MATERIAL.

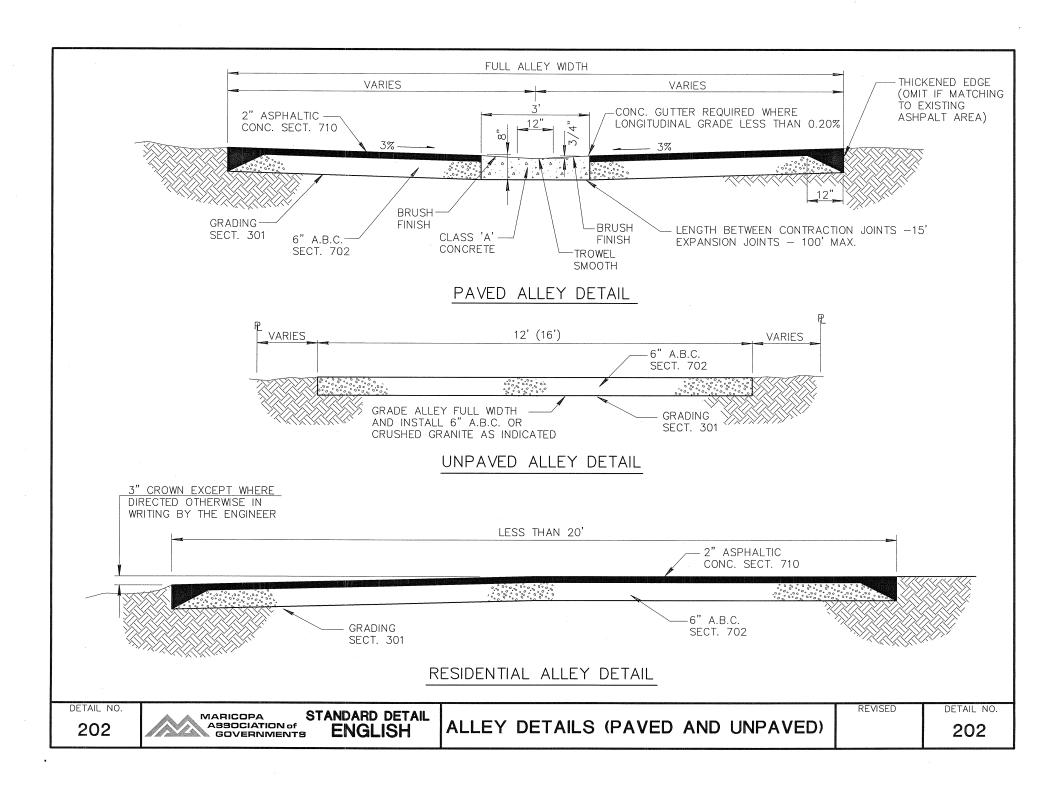
City of Scottsdale Standard Details

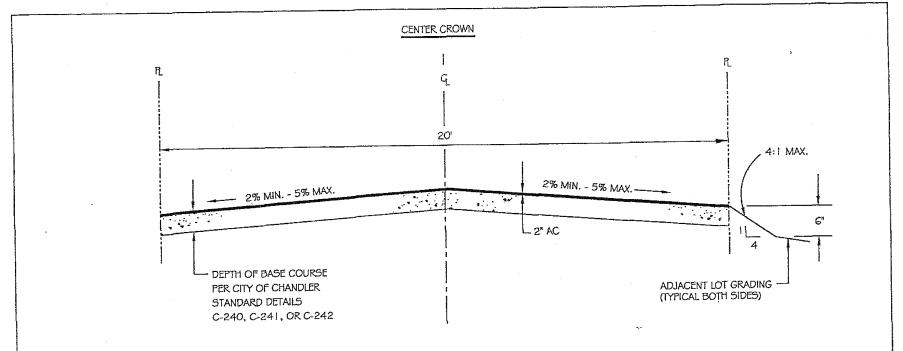
APPROVED BY: Scottsdale Standards & **Specifications Committee**

DETAIL NO. 2201

2201

TRENCH BEDDING & BACKFILL





- A. ASPHALTIC CONCRETE:
 - 1. MATERIAL: CONFORMING TO MAG STANDARD SPECIFICATION TYPE C 3/4 MIX EVAC.
 - 2. SUBGRADE PREPARATION: CONFORMING TO SECTION 301 MAG STANDARD SPECIFICATIONS.
 - 3. COMPACTION TO BE TESTED IN ACCORDANCE WITH AASHO T-99 METHOD A, AND T-191 OR ASTM D-2922 AND D-3017.
- B. AGGREGATE BASE COURSE:
 - 1. MATERIAL: CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS.
 - 2. SUBGRADE PREPARATION: CONFORMING TO SECTION 301 MAG STANDARD SPECIFICATIONS EXCEPT DENSITY SHOWN ABOVE SHALL BE USED.

C-251
REPLACES



ALLEY PAVEMENT
LOT DRAINAGE FROM ALLEY

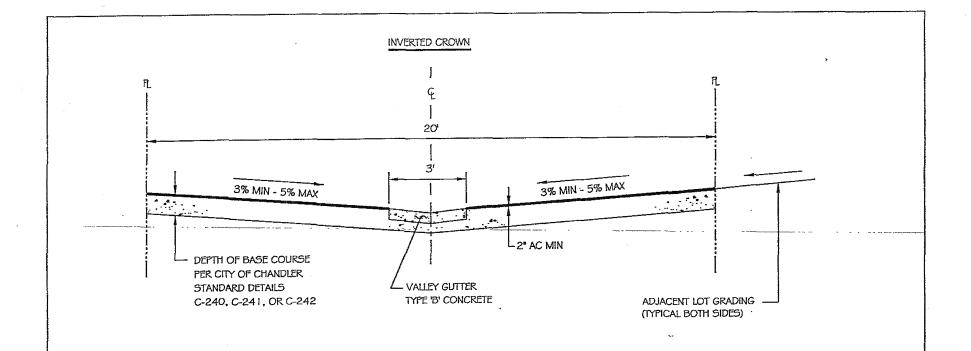
APPROVED: DITY ENGINEER

DATE: //-/9-99

DETAIL NO.

C-251

NTS



- A. ASPHALTIC CONCRETE:
 - 1. MATERIAL: CONFORMING TO MAG STANDARD SPECIFICATION TYPE C 3/4 MIX EVAC.
 - 2. SUBGRADE PREPARATION: CONFORMING TO SECTION 301 MAG STANDARD SPECIFICATIONS.
 - 3. COMPACTION TO BE TESTED IN ACCORDANCE WITH AASHO T-99 METHOD A, AND T-191 OR ASTM D-2922 AND D-3017.
- B. AGGREGATE BASE COURSE:
 - 1. MATERIAL: CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS.
 - 2. SUBGRADE PREPARATION: CONFORMING TO SECTION 301 MAG STANDARD SPECIFICATIONS EXCEPT DENSITY SHOWN ABOVE SHALL BE USED.

C-252

REPLACES

45

CITY OF

ALLEY PAVEMENT

APPROVED: DATE: //- /9-99

DETAIL NO.

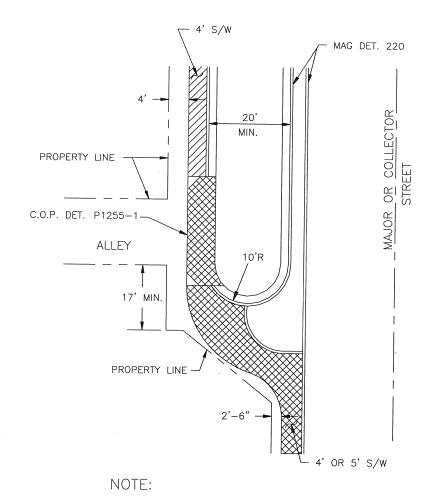
C-252

DETAIL NO.

C-252

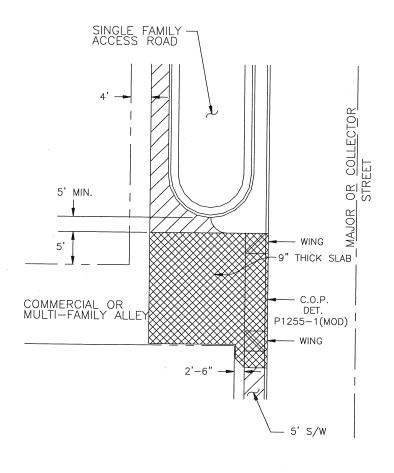
DATE: //- /9-99

NTS



SUFFICIENT RIGHT-OF-WAY MUST BE AVAILABLE TO CONSTRUCT ACCESS ROAD TERMINATION

SINGLE FAMILY ALLEY



NOTE:

- COMMERCIAL AND MULTI-FAMILY ALLEYS MAY NOT PROVIDE ACCESS TO SINGLE FAMILY ACCESS ROADS.
- ONLY ALLOWED FOR LOCATIONS WHERE REFUSE COLLECTION IS NOT PROVIDED ALONG THE ACCESS ROAD.

COMMERCIAL OR MULTI-FAMILY ALLEY

DETAIL NO. P1018



ACCESS ROAD TERMINATION AT ALLEYS

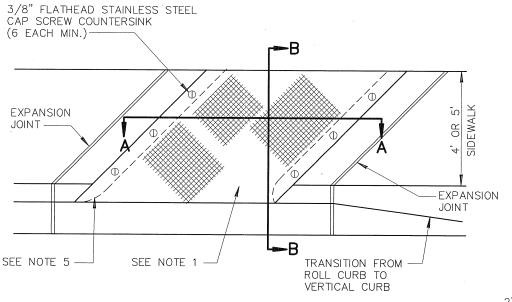
APPROVED

Senny Wtoni

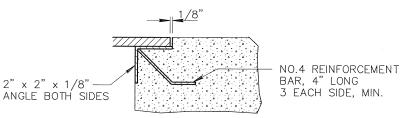
CITY ENGINEER

DETAIL NO.

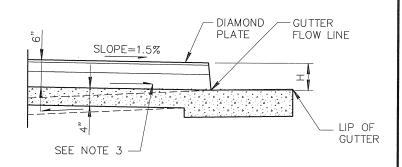
07-03-00 P1018



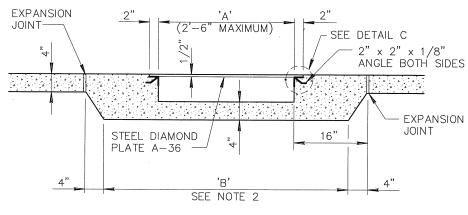
- 1. ANGLE EQUALS 45° UNLESS SPECIFIED ON PLAN.
- 2. DIMENSION 'B' EQUALS 'A' + 2'
- 3. (----) INDICATES DIRECTION OF FLOW.
- 4. PAINT STEEL ACCORDING TO SECTION 790. PAINT NUMBER 1-A OR 1-B.
- 5. R EQUALS 1" UNLESS OTHERWISE DIRECTED.
- 6. H EQUALS CURB FACE HEIGHT.
- 7. FOR ROLL CURB AND GUTTER, USE 2' TRANSITIONS TO VERTICAL CURB.
- 8. CONCRETE SHALL BE CLASS B PER SECT. 725 AND INSTALLED PER SECT. 505.



DETAIL C



SECTION 'B-B'



SECTION 'A-A'

DETAIL NO.

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL

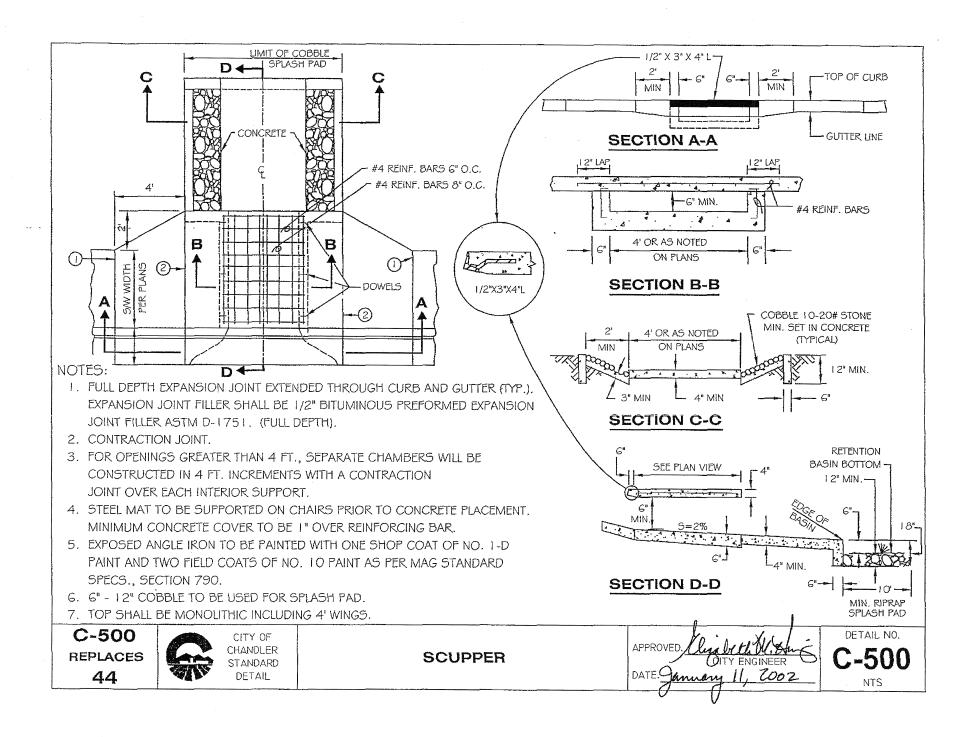
ENGLISH

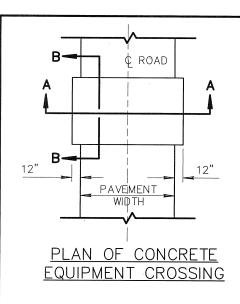
SCUPPERS

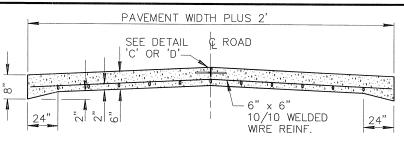
REVISED

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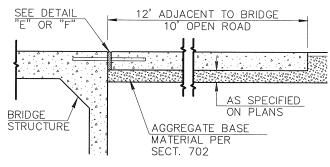
203







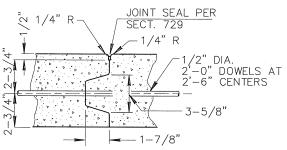
SECTION A-A



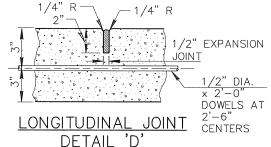
SECTION B-B

MATERIAL PER
SECT. 702

LONGITUDINAL JOIN

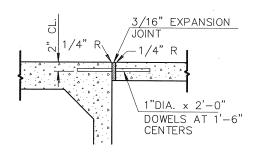


LONGITUDINAL JOINT
DETAIL 'C'

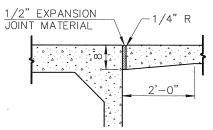


NOTES:

- WHEN EQUIPMENT CROSSING LIES ADJACENT TO BRIDGE OR BOX CULVERT, CONSTRUCT THE EQUIPMENT CROSSING TO WIDTH OF BRIDGE ROADWAY.
- 2. ALL DOWELS IN CENTER JOINTS SHALL BE DEFORMED BARS AND SHALL HAVE UNBROKEN BOND. THEY SHALL BE HELD SECURELY IN PLACE, PARALLEL TO THE SUBGRADE AND PERPENDICULAR TO THE CENTER LINE OF THE ROAD.
- 3. THE EDGING TOOL USED FOR ALL LONGITUDINAL JOINTS SHALL BE SO CONSTRUCTED AS TO PROVIDE A SMOOTH TROWELED SURFACE 3" WIDE ON EACH SIDE OF THE JOINT.
- 4. IF APPROVED BY THE ENGINEER, OTHER DEFORMATIONS MAY BE USED IN LONGITUDINAL JOINT DETAIL 'C'.
- 5. DETAIL 'C' TO BE USED ONLY WHEN FULL WIDTH CAN NOT BE POURED IN ONE POUR. USE DETAIL 'D' IF FULL WIDTH IS POURED IN ONE POUR.



JOINT AT NEW BRIDGE DETAIL 'F'



JOINT AT EXISTING BRIDGE DETAIL 'E'

DETAIL NO.

204 MARICOPA ASSOCIATION of GOVERNMENTS

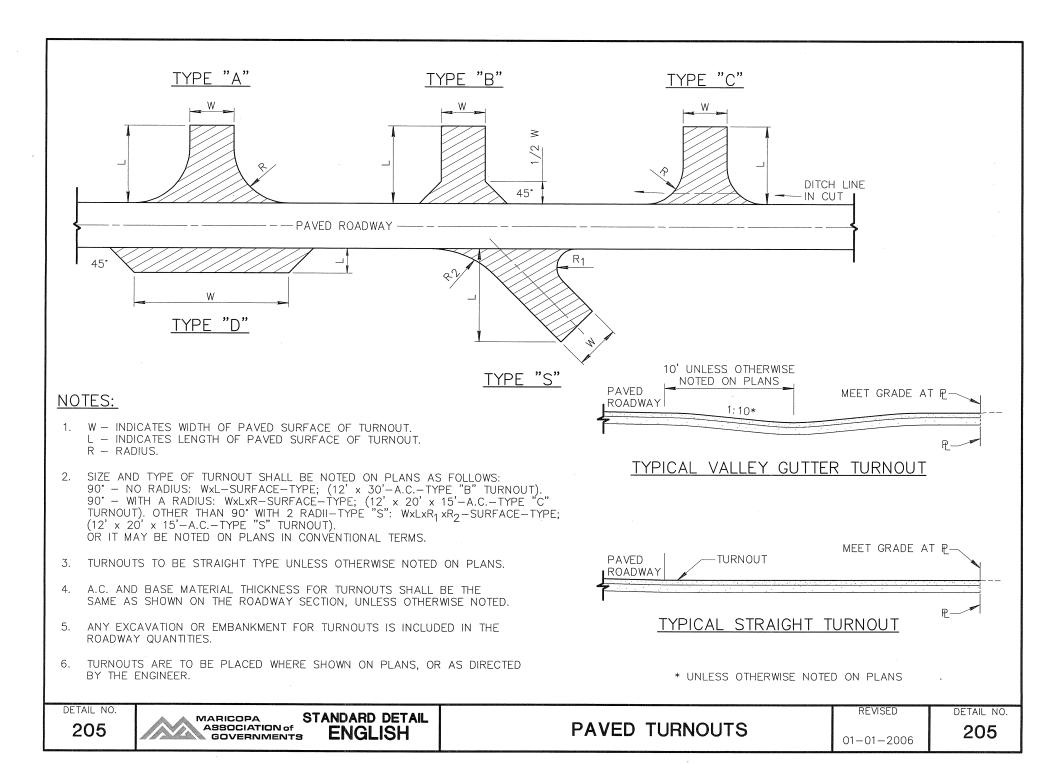
STANDARD DETAIL ENGLISH

EQUIPMENT CROSSING

REVISED

DETAIL NO.

204



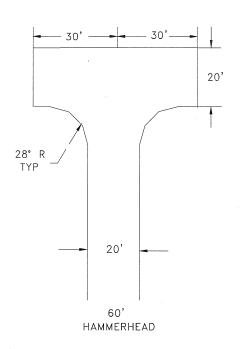
PEORIA DETAIL 252-2 ALTERNATIVE TURNAROUNDS



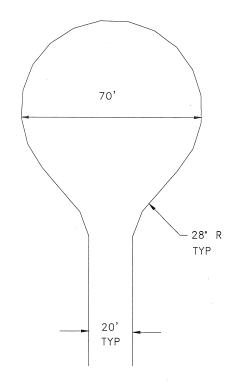
APPROVALS:

CITY ENGINEER

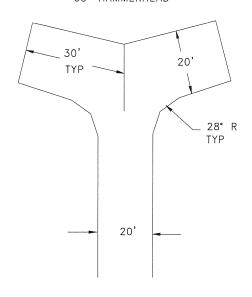
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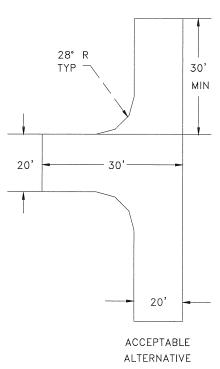


70' CUL-DE-SAC



ACCEPTABLE ALTERNATIVE 60' HAMMERHEAD





60' HAMMERHEAD

2/28/01

I:\GUIDE\DETAILS\252-2.DWG

PEORIA DETAIL

WB50

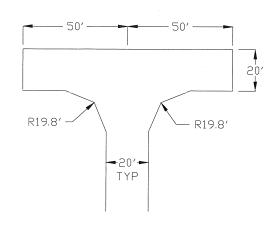


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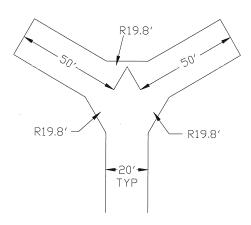
CITY ENGINEER

DATE

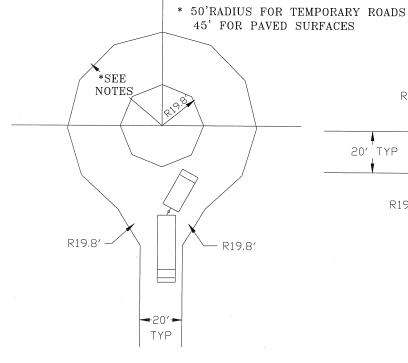
FIRE MARSHAL



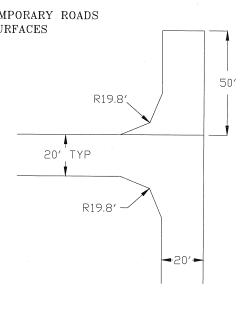
100' HAMMERHEAD



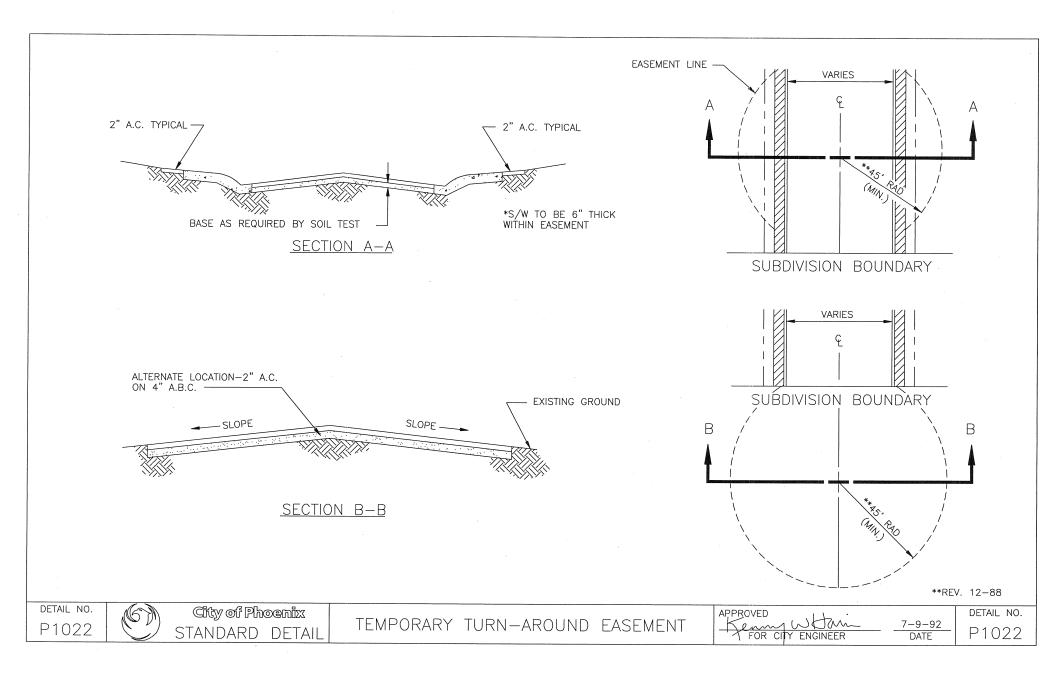
ACCEPTABLE ALTERNATE TO 100' HAMMERHEAD

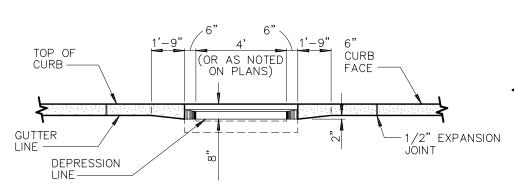


90' CUL-DE-SAC

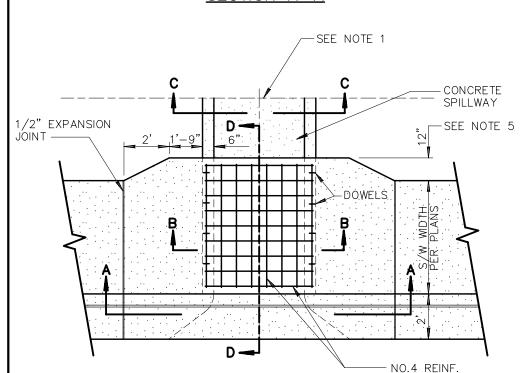


ACCEPTABLE ALTERNATE
TO 100' HAMMERHEAD

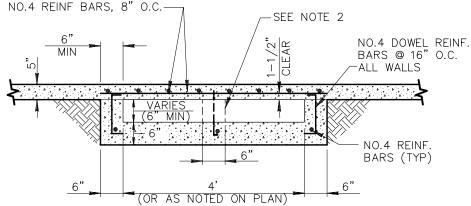




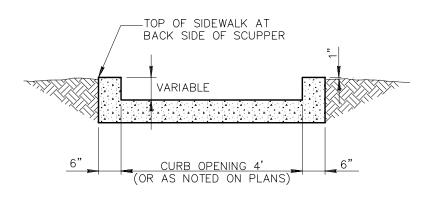
SECTION A-A



SCUPPER PLAN VIEW



SECTION B-B



SECTION C-C SPILLWAY

NOTES:

- 1. TRANSITION TO SPILLWAY/CHANNEL AS PER APPROVED PLANS.
- 2. A CENTER WALL SHALL BE INSTALLED IN SCUPPERS WIDER THAN 4' OR IF MORE THAN 1 SCUPPER IS BUILT IN SERIES.
- 3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
- 4. CONCRETE FOR THE SCUPPER SHALL BE CLASS 'A' PER SECTION 725. CONCRETE FOR THE SPILLWAY SHALL BE CLASS 'A' OR CLASS 'B'.
- 5. 12" OFFSET DISTANCE SHALL BE INCREASED TO 2'-6" FOR DESIGNATED BICYCLE PATHS.

206-1

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL

ENGLISH

BARS @ 8" O.C.

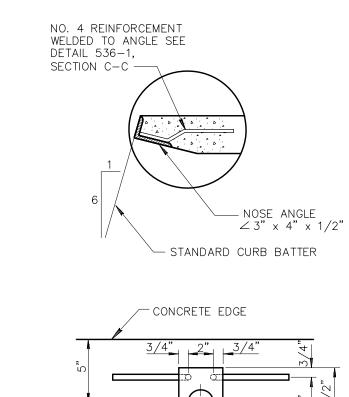
CONCRETE SCUPPER

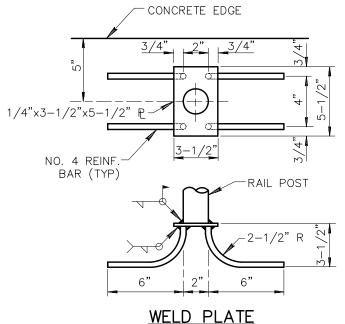
REVISED

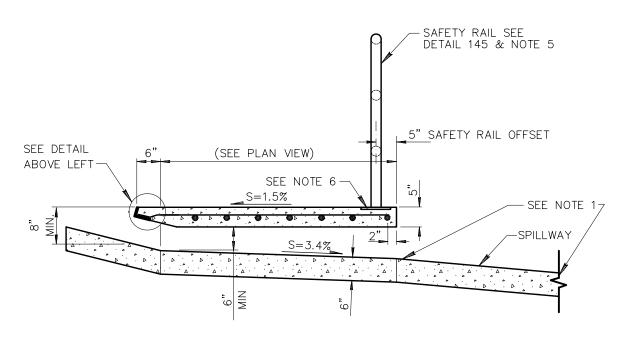
DETAIL NO.

01-01-2007

206-1







SECTION D-D

NOTES:

- 1. TRANSITION TO SPILLWAY/CHANNEL AS PER APPROVED PLANS.
- 2. A CENTER WALL SHALL BE INSTALLED IN SCUPPERS WIDER THAN 4' OR IF MORE THAN 1 SCUPPER IS BUILT IN SERIES.
- 3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
- 4. CONCRETE FOR THE SCUPPER SHALL BE CLASS 'A' PER SECTION 725. CONCRETE FOR THE SPILLWAY SHALL BE CLASS 'A' OR CLASS 'B'.
- 5. SAFETY RAIL SHALL BE CONTINUOUS BETWEEN THE SPILLWAY EXTERIOR WALLS.
- 6. USE WELD PLATES FOR SAFETY RAIL ANCHORS LOCATED IN THE 5" THICK CONCRETE.

DETAIL NO.

MARICOPA ASSOCIATION of GOVERNMENTS 206 - 2

STANDARD DETAIL

ENGLISH

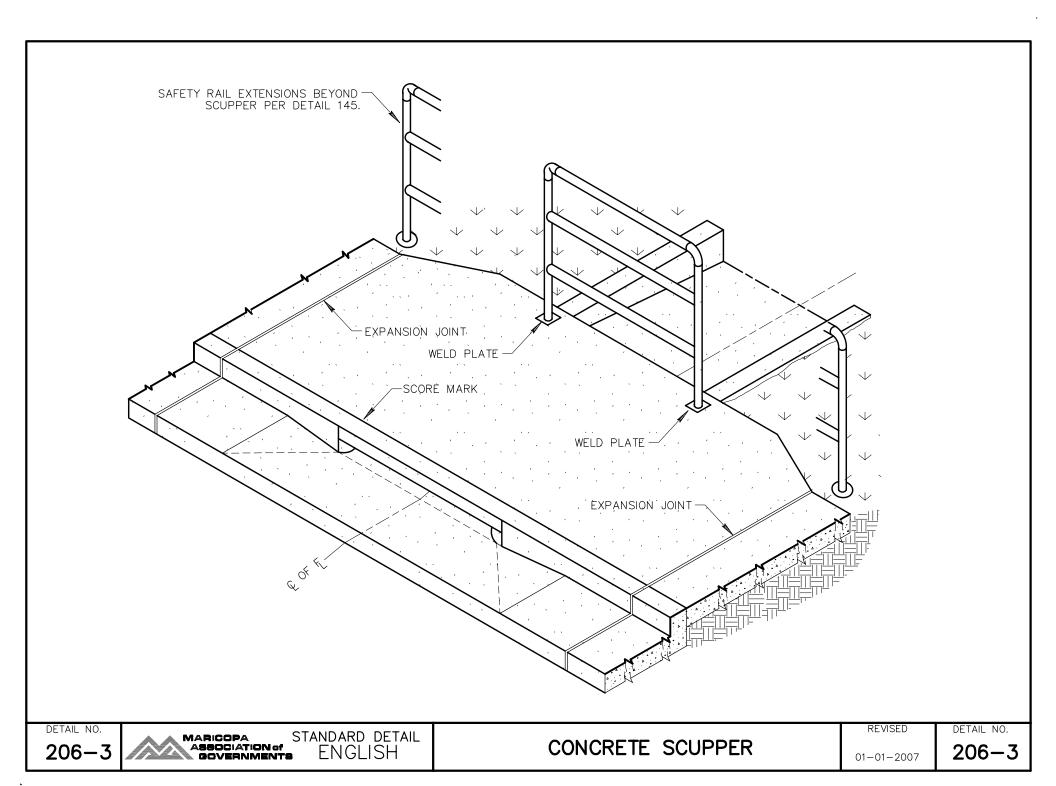
CONCRETE SCUPPER

REVISED

DETAIL NO.

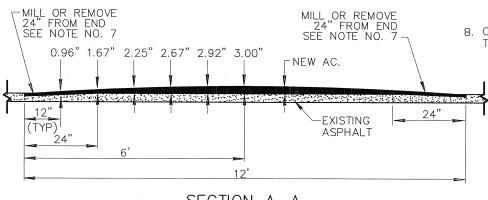
01-01-2007

206 - 2



SIDEWALK MILL 24" BY 3/4" DEEP EXISTING ROLL OR -OR REMOVE, SEE NOTE 7 VERTICAL CURB AND **GUTTER** — Ç STREET 10" REFLECTIVE WHITE EDGE OF STRIPES. В PAVEMENT -В MILL 24" BY 3/4" DEEP SIDEWALK OR OVERLAY, SEE NOTE NO. 7

PLAN VIEW

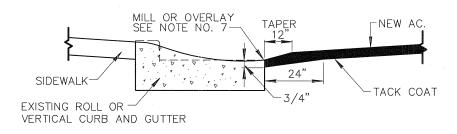


SECTION A-A

IMPORTANT: TO GAIN MAXIMUM EFFECT, HUMPS MUST BE THE FULL 3". CONTRACTORS MUST NOT EXCEED THIS HEIGHT BASED ON CONSIDERATION FOR EMERGENCY POLICE AND FIRE DEPARTMENT VEHICLES.

NOTES:

- 1. HUMPS MUST BE THE FULL 3" FOR MAXIMUM EFFECT BUT SHALL NOT EXCEED 3.25".
- 2. HUMPS CONSTRUCTED OVER 3.25" SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 3. CROSS-SECTION ELEVATIONS SHALL HAVE A MAXIMUM TOLERANCE OF +0.25".
- 4. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MONUMENTS, JUNCTION CHAMBERS, ETC. OR IN CONFLICT WITH DRIVEWAYS.
- 5. SPEED HUMPS MUST BE PLACED AT LOCATIONS APPROVED BY THE AGENCY.
- 6. HUMP TO BE CONSTRUCTED WITH ASPHALT MIX APPROVED BY THE AGENCY. ASPHALT COMPACTION SHALL BE PER SECTION 321. A TACK COAT PER SECTION 713 SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT.
- 7. INSTALLATION JOINTS:
 - A. STANDARD INSTALLATION: THE EXISTING ROADWAY SHALL BE MILLED TO A MINIMUM DEPTH OF 3/4" AROUND THE PERIMETER. CROSS SECTION DIMENSIONS DO NOT INCLUDE THE 3/4" MILLING. CONTRACTOR MUST PROVIDE VERIFICATION OF CROSS-SECTION DIMENSIONS.
 - B. ALTERNATIVE INSTALLATION: FOR TRANSVERSE JOINTS (CROSS ROADWAY), THE EXISTING ASPHALT SHALL BE SAW CUT AND REMOVED FOR A WIDTH OF 18". THE ASPHALT SHALL BE REPLACED WITH THE SAME ASPHALT AND AT THE SAME TIME AS THE HUMP ASPHALT. FOR LONGITUDINAL JOINTS. THE EXISTING ASPHALT SHALL BE OVERLAID AND TAPERED IN 12". CROSS-SECTION DIMENSIONS REFLECT DISTANCES FROM THE SURFACE OF EXISTING ASPHALT.
- 8, CONTACT THE AGENCY (OR INSPECTOR) ONE WEEK PRIOR TO INSTALLATION TO COORDINATE PAVEMENT MARKINGS AND SIGNING.



SECTION B-B

DETAIL NO.

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL **ENGLISH**

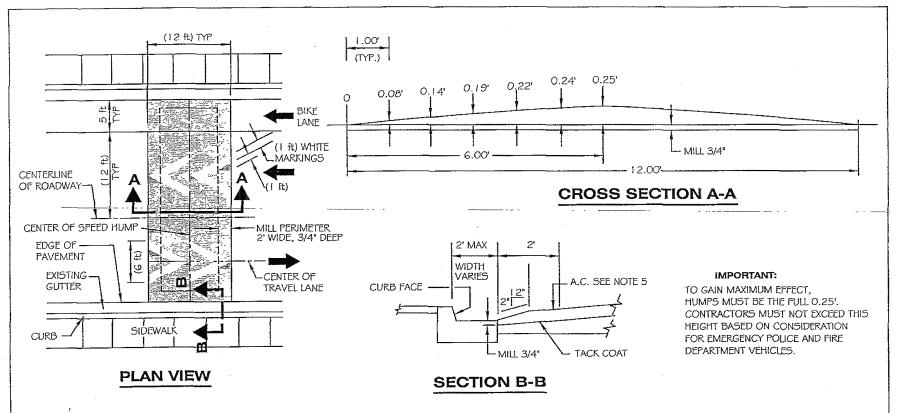
RESIDENTIAL SPEED HUMP

REVISED

DETAIL NO. 210

210

01-01-2006



- 1. HUMPS MUST BE THE FULL 0.25' FOR MAXIMUM EFFECT BUT SHALL NOT EXCEED 0.27'.
- 2. HUMPS CONSTRUCTED OVER 0.27' SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- 3. CROSS-SECTION ELEVATIONS SHALL HAVE A MAXIMUM TOLERANCE OF ± 0.02'.
- 4. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, JUNCTION STRUCTURES, ETC.
- 5. THE EXISTING ROADWAY SHALL BE MILLED TO A DEPTH OF 3/4", AROUND THE PERIMETER AS SHOWN. CROSS SECTION DIMENSIONS DO NOT INCLUDE THE 3/4" MILLING.
- 6. HUMP SHALL BE CONSTRUCTED WITH EVAC SUPERMIX A-12.5. A TACK COAT SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT.
- 7. SPEED HUMPS SHALL BE PLACED AT LOCATIONS APPROVED BY TRAFFIC ENGINEERING.
- 8. CONTACT TRAFFIC ENGINEERING (782-3451) ONE WEEK PRIOR TO INSTALLATION TO COORDINATE PAVEMENT MARKINGS AND SIGNING.

DETAIL NO.

C-234

NTS

CHANDLER
STANDARD
DETAIL

SPEED HUMP

CITY OF
CHANDLER
STANDARD
DETAIL

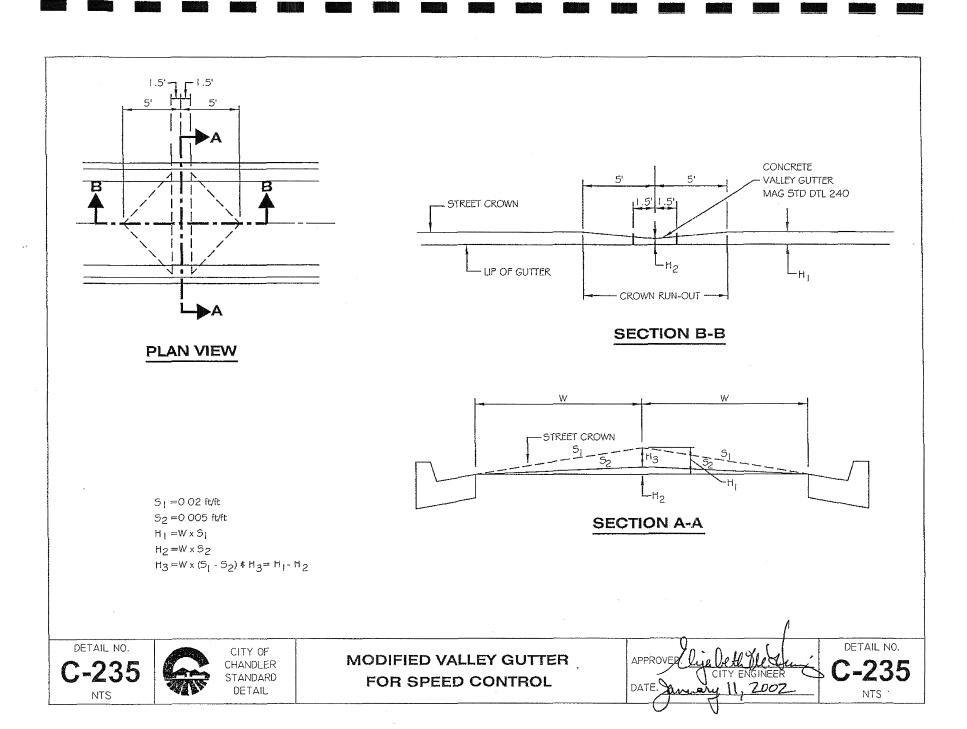
SPEED HUMP

DATE: DATE: DATE: DATE: NTS

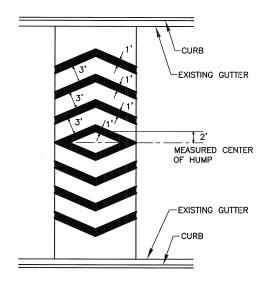
DETAIL NO.

C-234

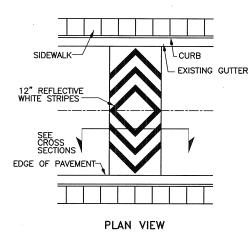
NTS



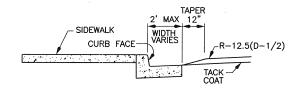
- 1. EACH SPEED HUMP SHALL HAVE ONE DIAMOND—SHAPED STRIPE LOCATED IN THE MEASURED CENTER OF THE HUMP.
- 2. ALL STRIPES SHALL BE ONE FOOT IN WIDTH.
- 3. ADDITIONAL STRIPES SHALL BE PLACED 3 FEET APART UP TO THE GUTTER, BUT NOT IN THE GUTTER.
- 4. THE NUMBER OF STRIPES MAY VARY DEPENDING ON THE WIDTH OF THE SPEED HUMP. THE AVERAGE HUMP, 34 FEET IN WIDTH, HAS ONE DIAMOND STRIPE AND THREE ADDITIONAL STRIPES ON EITHER SIDE OF THE DIAMOND.
- 5. CHEVRON STRIPES SHALL NOT OVERLAP INTO THE GUTTER.
- 6. ALL STRIPES SHALL BE DONE USING ALKYD THERMOPLASTIC HOT TAPE.



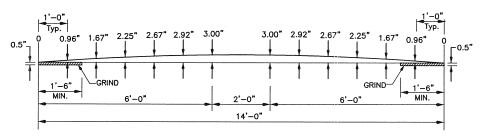
- 1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MONUMENTS, ETC.
- 2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION SUCH THAT DRAINAGE IS COMPROMISED.
- 3. SPEED HUMPS SHALL BE CONSTRUCTED WITH TYPE R-12.5 ASPHALT MIX PER EAST VALLEY ASPHALT (EVA) CRITERIA, 1996 EDITION AND BE APPROVED BY EVA COMMITTEE. A TACK COAT SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT MATERIAL.



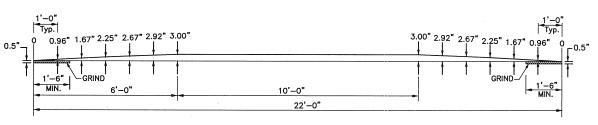
SPEED HUMPS TO BE 3" IN HEIGHT TO PROVIDE MAXIMUM EFFECTIVENESS, WHILE NOT BEING OVERLY RESTRICTIVE TO EMERGENCY POLICE AND FIRE VEHICLES.



EDGE DETAIL



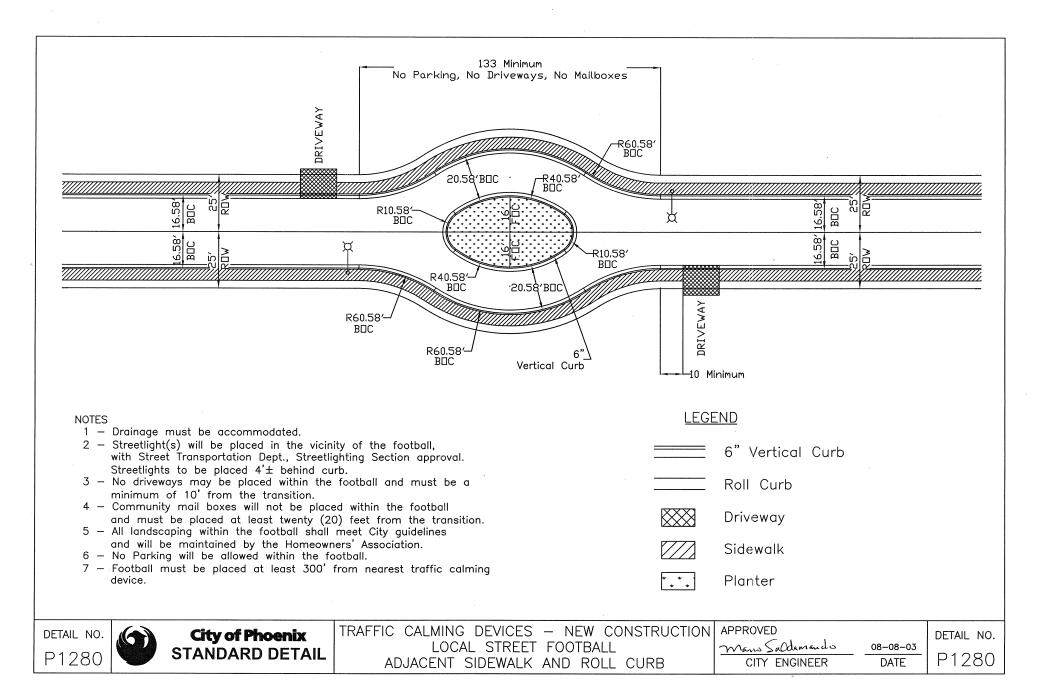
14' CROSS SECTION

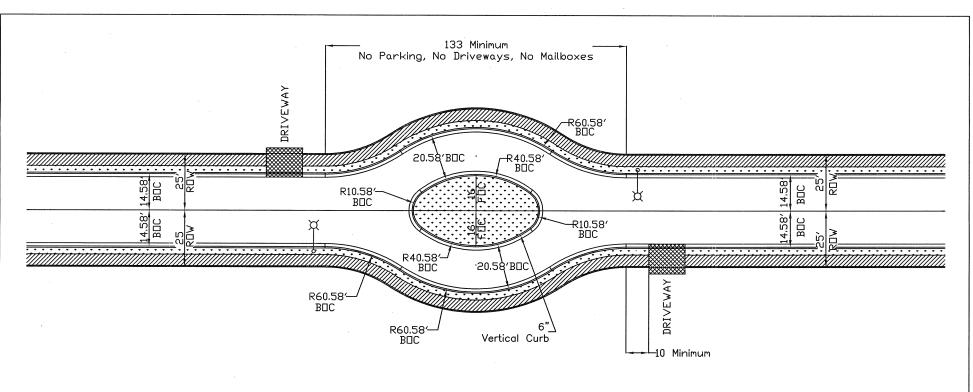


22' CROSS SECTION

DETAIL NO. M-15.2

 $\mathbf{\Sigma}$





- 1 Drainage must be accommodated.
- 2 Streetlight(s) will be placed in the vicinity of the football, with Street Transportation Dept., Streetlighting Section approval. Streetlights to be placed 4'± behind curb.
- 3 No driveways may be placed within the football and must be a minimum of 10' from the transition.
- 4 Community mail boxes will not be placed within the football and must be placed at least twenty (20) feet from the transition.
- 5 All landscaping within the football shall meet City guidelines and will be maintained by the Homeowners' Association.
- 6 No Parking will be allowed within the football.
- 7 Football must be placed at least 300' from nearest traffic calming device.

<u>LEGEND</u>

6" Vertical Curb

Driveway

Sidewalk

Planter

DETAIL NO. P1281



TRAFFIC CALMING DEVICES — NEW CONSTRUCTION
LOCAL STREET FOOTBALL
DETACHED SIDEWALK AND VERTICAL CURB

APPROVED

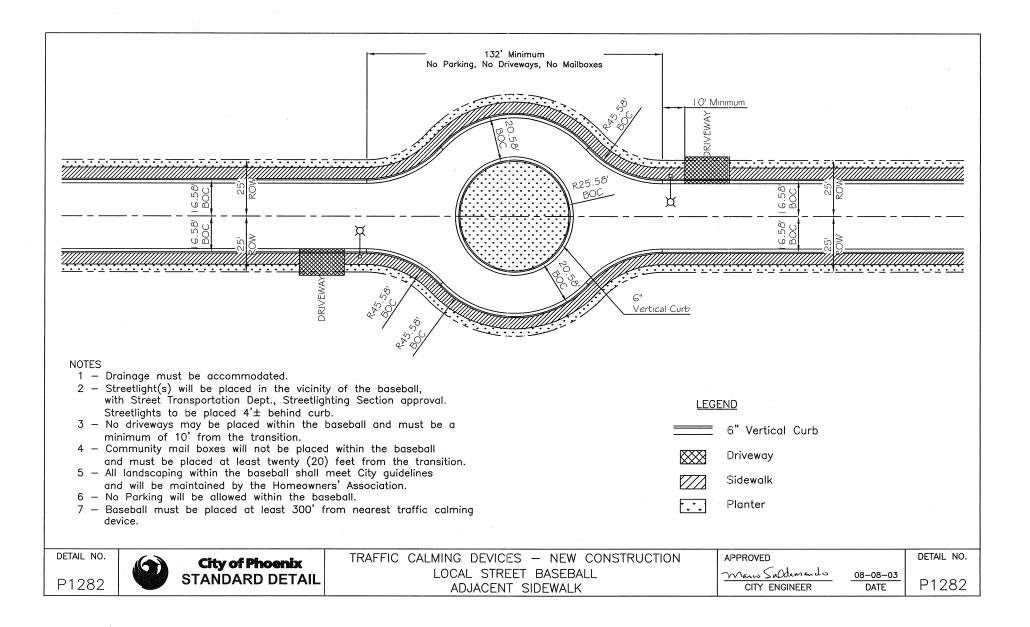
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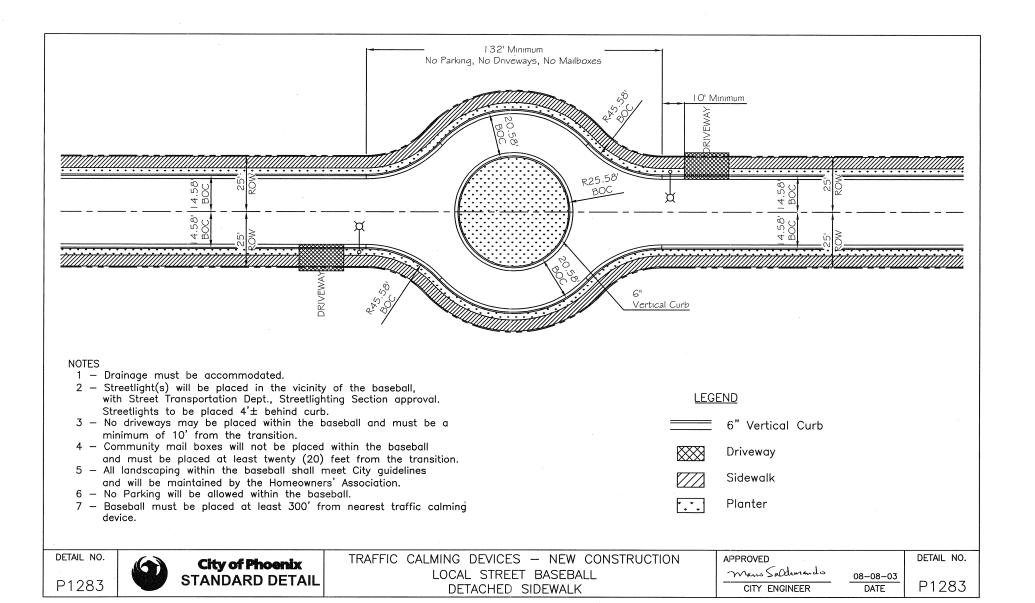
CITY ENGINEER

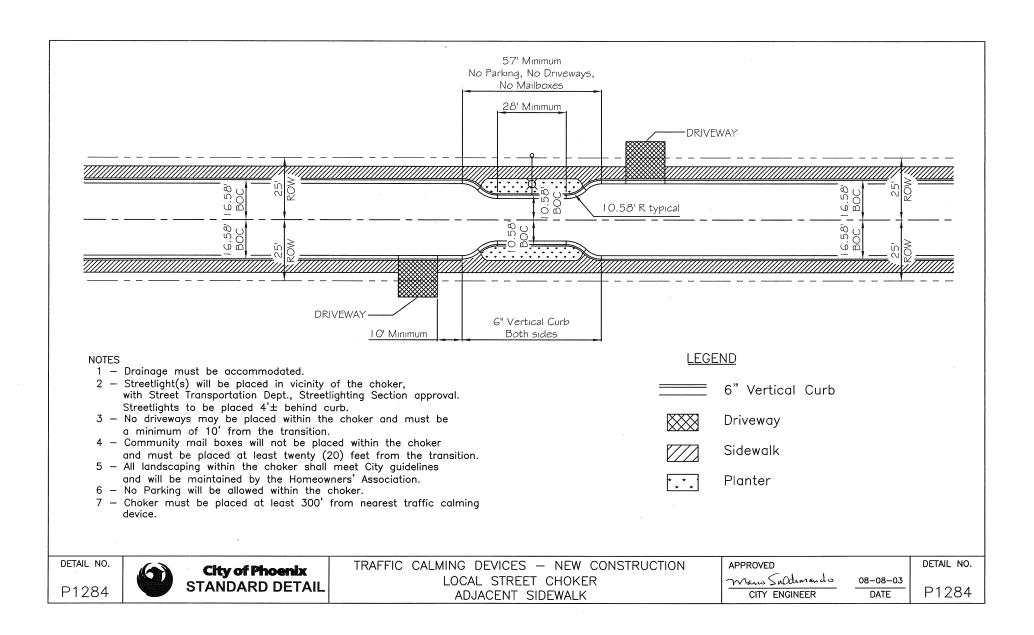
08-08-03 DETAIL NO.

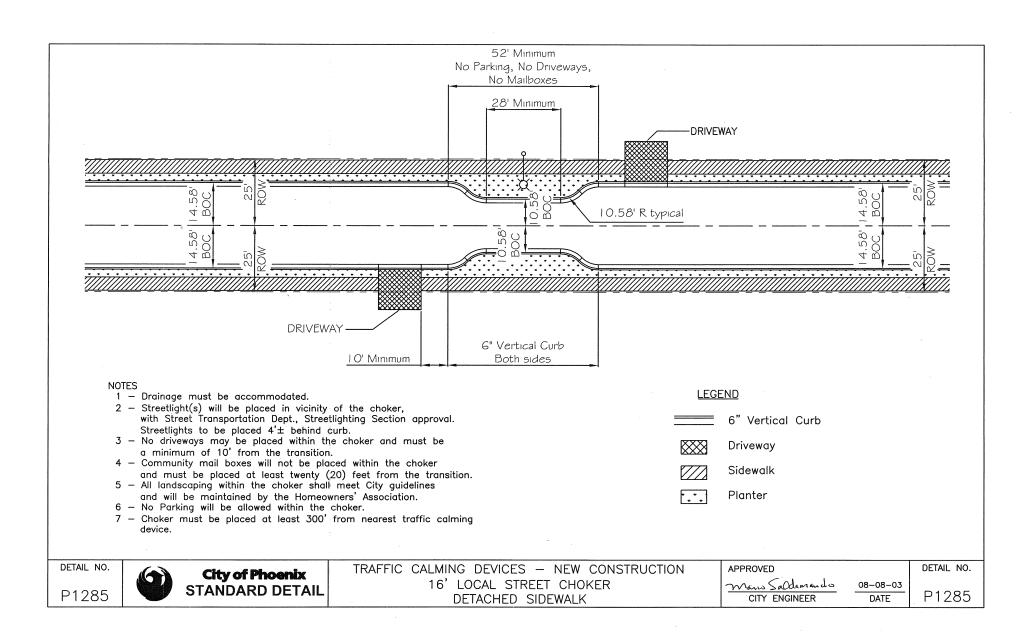
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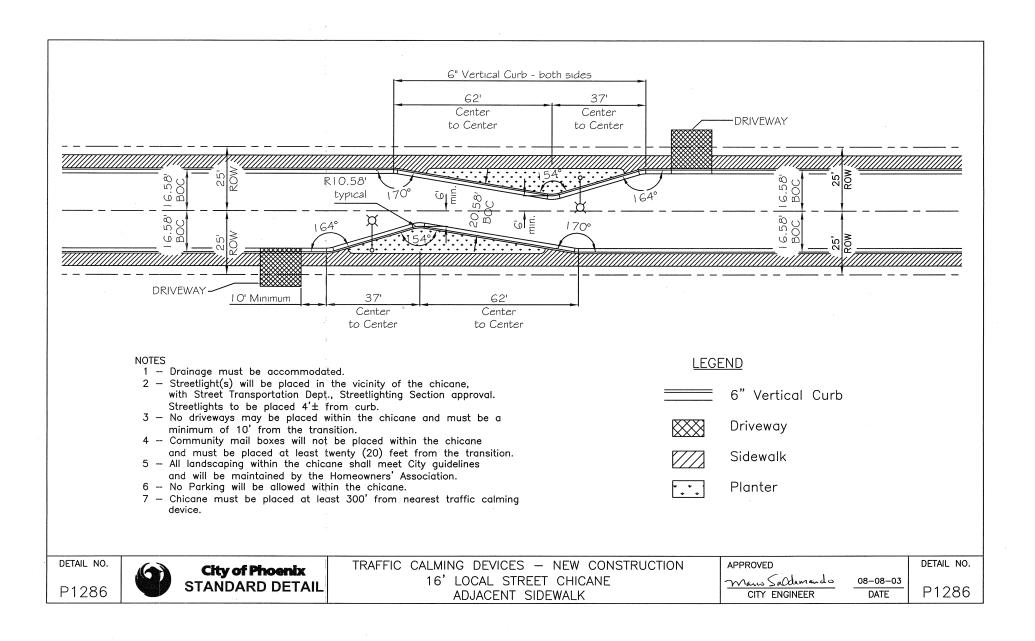
P1281

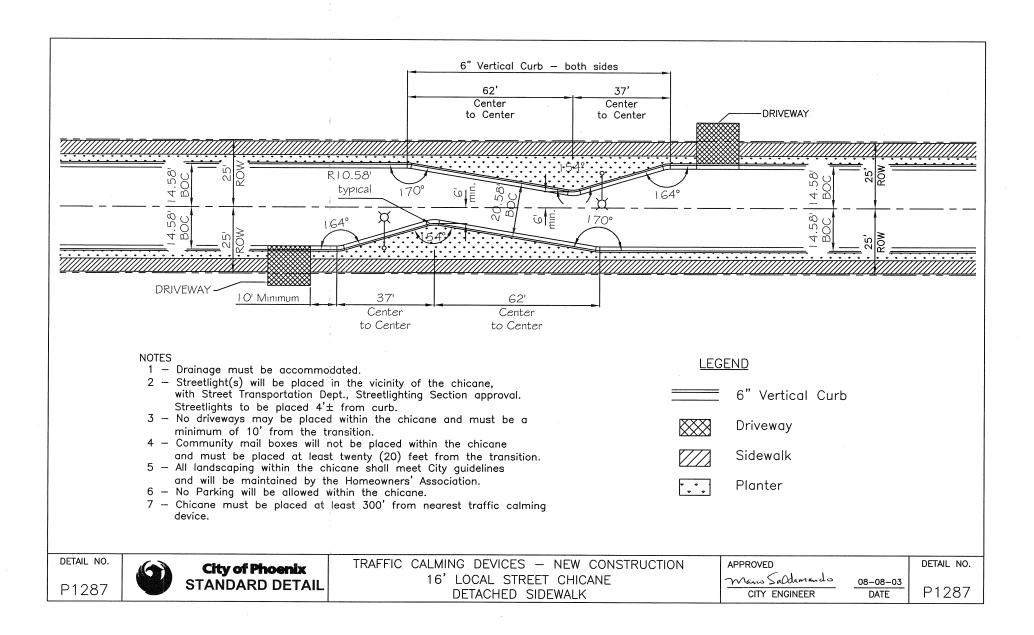


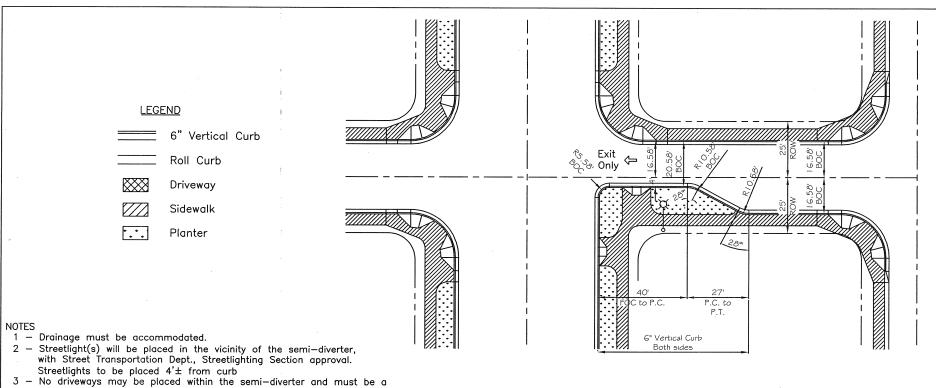












minimum of 10' from the transition.

4 - Community mail boxes will not be placed within the semi-diverter and must be placed at least twenty (20) feet from the transition.

- 5 All landscaping within the semi-diverter shall meet City guidelines and will be maintained by the Homeowners' Association. If there is no Homeowners' Association, only decomposed granite will be placed within the semi-diverter.
- 6 No Parking will be allowed within the semi-diverter.
- 7 Semi-diverter must be placed at least 300' from nearest traffic calming device.

DETAIL NO.

P1288

City of Phoenix STANDARD DETAIL TRAFFIC CALMING DEVICES - NEW CONSTRUCTION LOCAL STREET SEMI-DIVERTER ADJACENT SIDEWALK

APPROVED

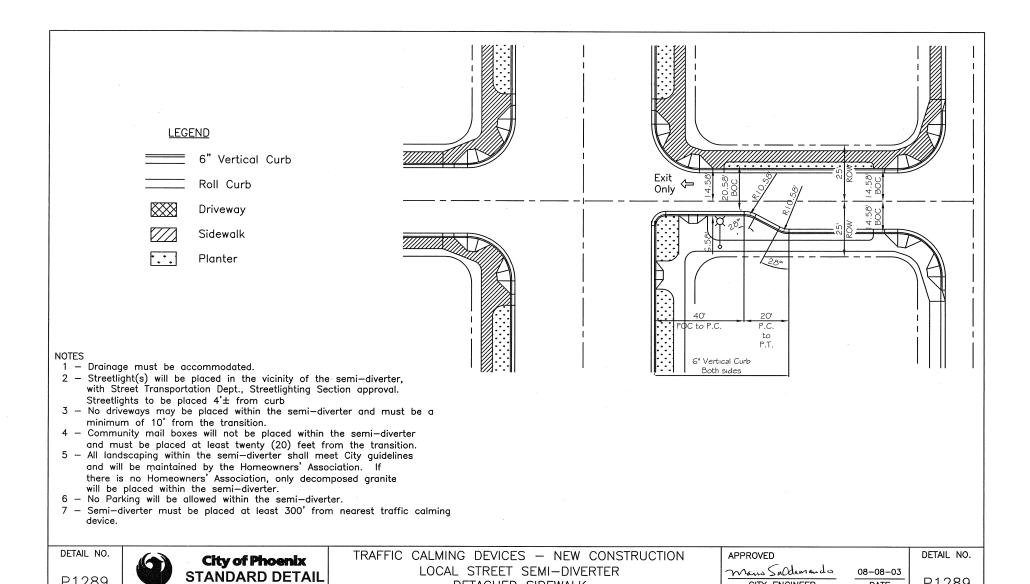
mans Saddamando CITY ENGINEER

08-08-03

DATE

P1288

DETAIL NO.



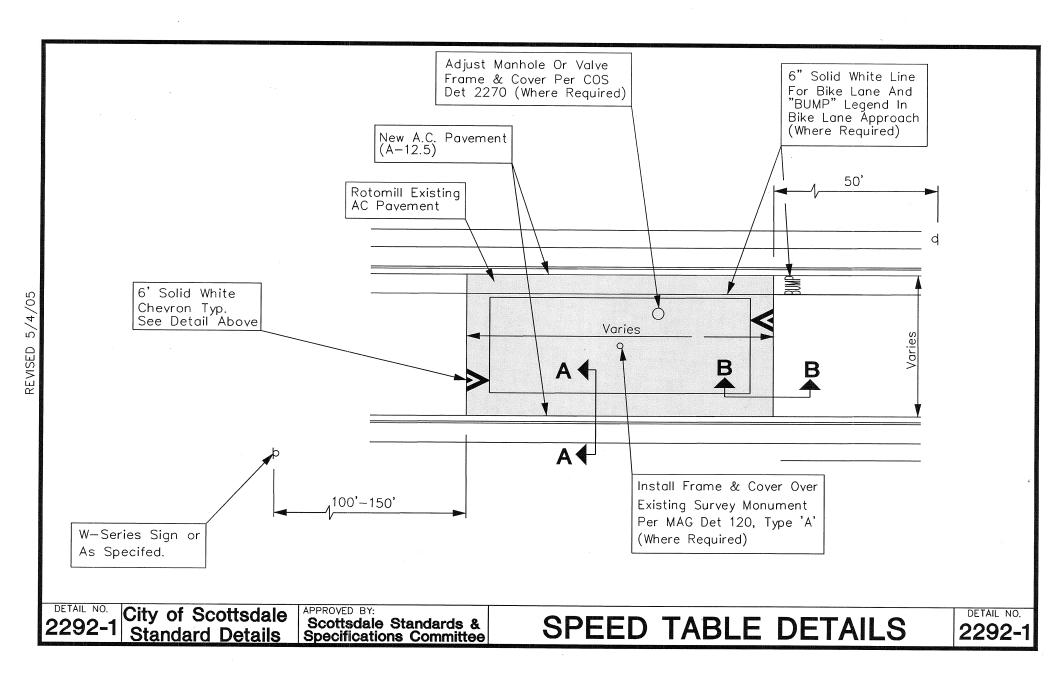
DETACHED SIDEWALK

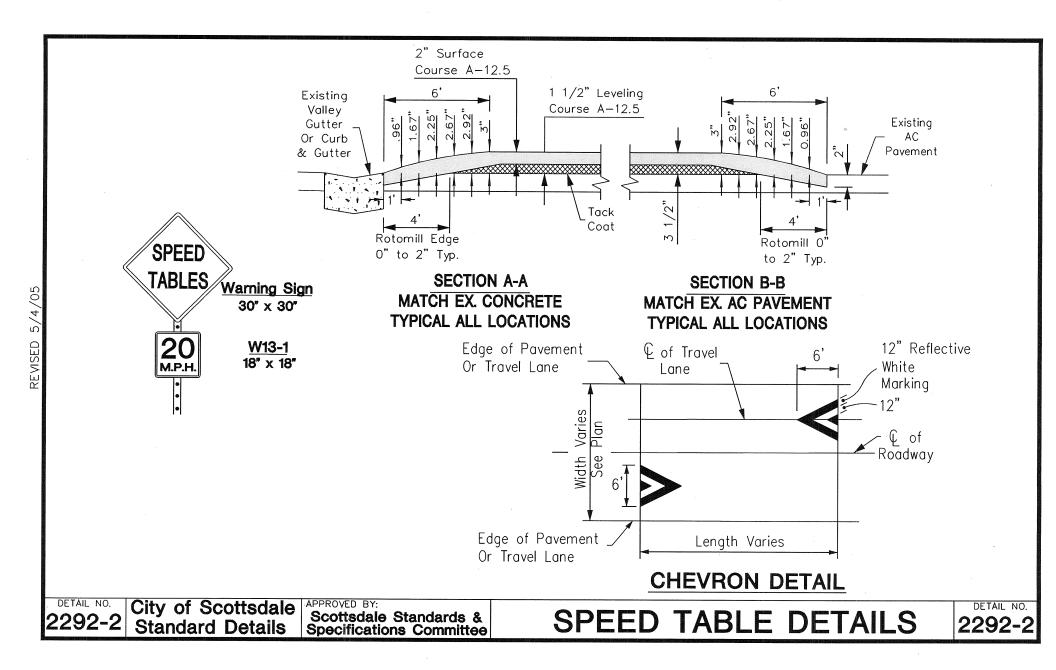
P1289

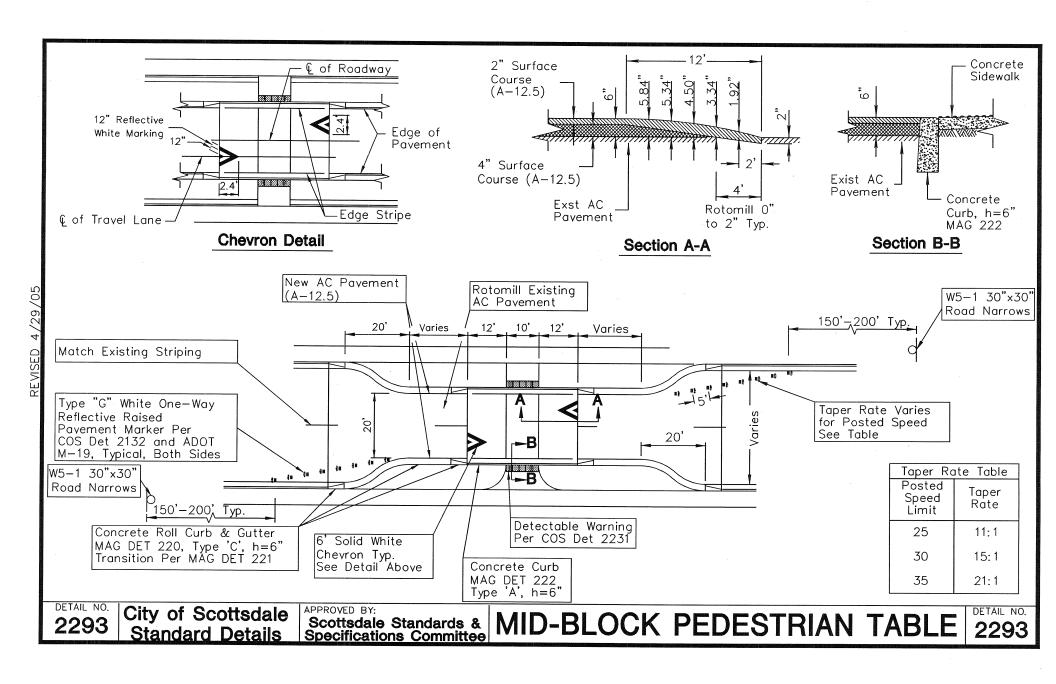
DATE

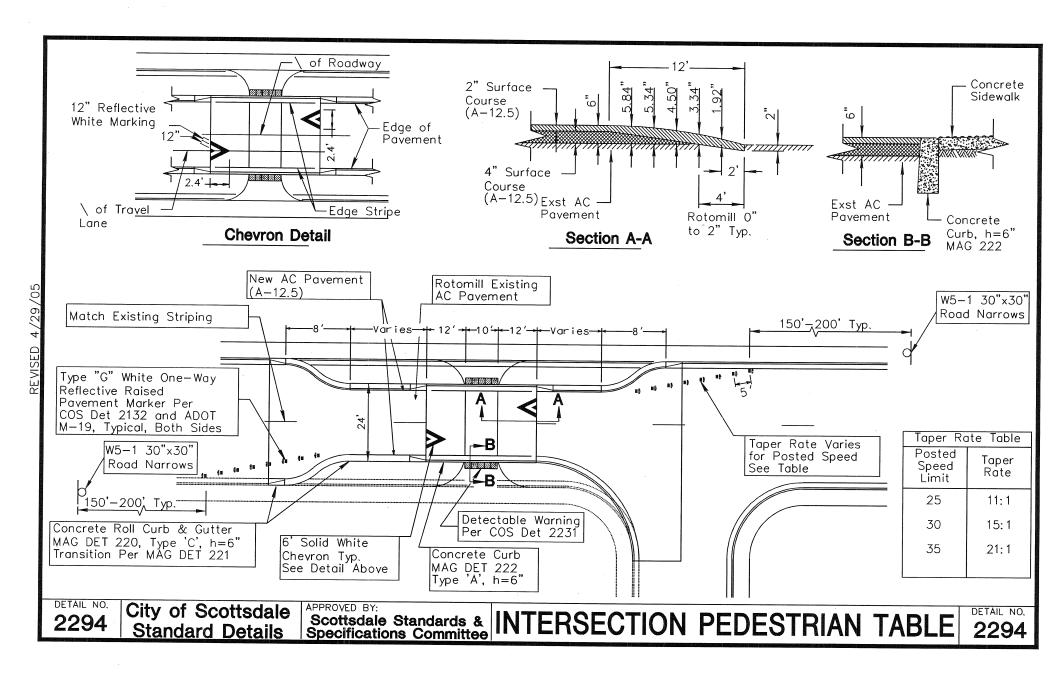
CITY ENGINEER

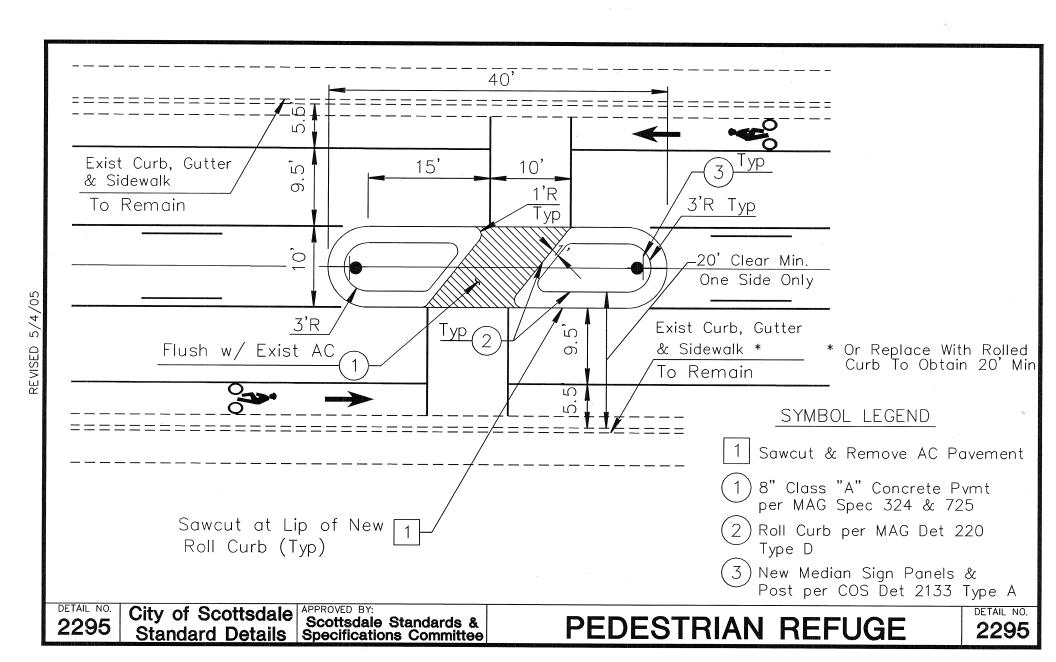
P1289











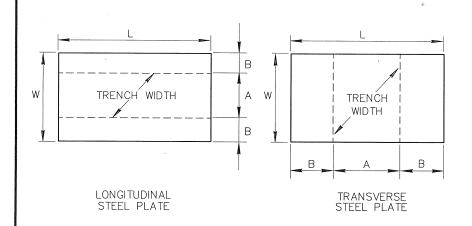
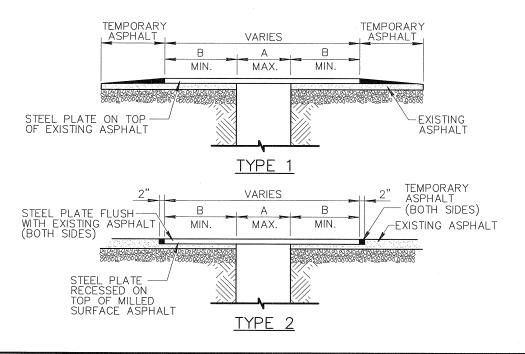


PLATE SIZE								
LONGIT	UDINAL		TRANSVERSE					
(A)	(B)	THICKNESS	KNESS (W) (L)			(B)		
12"	18"	1"	4'	8'	58"	19"		
12"	18"	1"	4'	10'	58"	31"		
24"	18"	1"	5'	10'	70"	25"		
36"	18"	1"	6'	10'	44"	38"		
48"	18"	1"	7'	10'	52"	34"		
60"	18"	1"	8'	10'	58"	31"		
12"	18"	1-1/4"	4'	15'	88"	47"		
24"	18"	1-1/4"	5'	12'	104"	20"		
36"	18"	1-1/4"	6'	12'	66"	39"		
36"	18"	1-1/4"	6	16'	66"	63"		
48"	18"	1-1/4"	7'	12'	76"	33"		
48"	18"	1-1/4"	7'	16'	76"	58"		
60"	18"	1-1/4"	8'	12'	86"	29"		
60"	18"	1-1/4"	8'	15'	86"	47"		
60"	18"	1-1/4"	8'	16'	86"	63"		
60"	18"	1-1/4"	8'	20'	86"	77"		
60"	18"	1-3/8"	8'	20'	102"	69"		

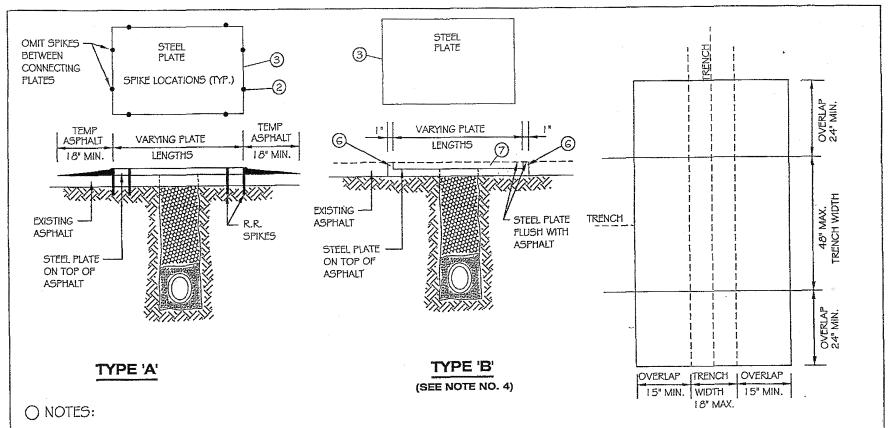
NOTES:

- 1. USE TYPE 1 PLATE INSTALLATION WHERE POSTED SPEED LIMIT IS LESS THAN 30 MPH. USE TYPE 2 PLATE INSTALLATION WHERE POSTED SPEED LIMIT IS 30 MPH OR GREATER.
- 2. FOR TYPE 2 PLATE INSTALLATION, THE STEEL PLATE SHALL BE RECESSED BY MILLING INTO THE EXISTING ASHPALT TO SET FLUSH WITH THE SURFACE OF THE EXISTING ASPHALT. FULL DEPTH CUTTING OF PAVEMENT SECTION OUTSIDE OF TRENCH IS NOT PERMITTED. MILLING DEPTH SHALL MATCH THICKNESS OF PLATE. THE GAP BETWEEN THE EDGE OF THE PLATE AND THE ADJACENT EXISTING ASPHALT PAVEMENT MUST BE FILLED WITH TEMPORARY ASPHALT.
- 3. TRENCH WIDTHS ARE BASED ON AN ANALYSIS PER THE 14TH EDITION OF STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES BY AASHTO. AN ASSUMED AXLE LOADING OF 12 TONS WITH A 30% IMPACT FACTOR WAS USED. THE AXLE LENGTH IS 6 FEET: THEREFORE THE NUMBER OF WHEELS CARRIED BY A PLATE DEPENDS ON THE ROADWAY WIDTH.
- 4. STEEL PLATE MUST BE ABLE TO WITHSTAND H-20 TRAFFIC LOADINGS WITHOUT ANY MOVEMENT.
- 5. PLATES SHALL BE FABRICATED FROM ASTM A36 STEEL (MIN).
- 6. PLATES SHALL BE SECURED FROM LATERAL MOVEMENT AND VERTICAL VIBRATION (ASSOCIATED NOISE) WHILE IN USE BY TEMPORARY ASPHALT (COLD MIX.)



DETAIL NO.

211



- 1. USE OF STEEL PLATES WILL NOT EXCEED SEVENTY-TWO (72) HOURS, PRIOR TO FINAL PATCH.
- 2. USE R.R. SPIKES OR SIMILAR FASTENER.
- 3. TYPICAL PLATE DIMENSIONS 4' X 8' X 1" THICK.
- 4. USE TYPE 'B' ON STREETS WHERE THE POSTED SPEED LIMIT IS 30 M.P.H. OR GREATER. STEEL PLATE SHALL BE SET FLUSH WITH EXISTING ASPHALT.
- 5. TRENCH BACKFILL AND PAVEMENT REPLACEMENT PER MAG STANDARD DETAIL 200.
- 6. GAP I" TO A MAXIMUM OF 4", MUST BE FILLED WITH TEMPORARY ASPHALT.
- 7. STEEL PLATE MUST BE STABLE TO STAND HEAVY TRAFFIC, NOT ALLOWING ANY MOVEMENT.

C-106

CITY OF CHANDLER STANDARD DETAIL

STANDARD TRENCH PLATING

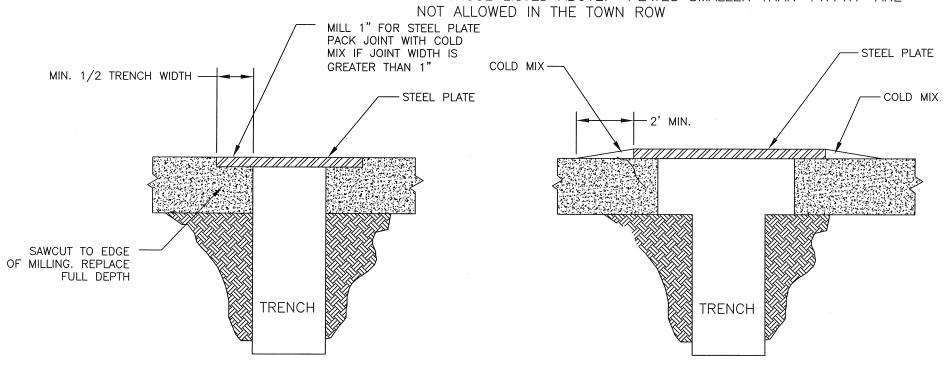
APPROVED: DATE: 11-19-99

C-106

NTS

NOTES:

- 1. THE CONTRACTOR SHALL PROVIDE ADEQUATE OVERLAP OF PLANE ON ASPHALT TO ASSURE NO SLIPPAGE OF PLATE AND NO COLLAPSING OF TRENCH.
- 2. "POSTED SPEED" DOES NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING.
- 3. MINIMUM PLATE SIZE OF 4'X4'X1' CAN BE USED ON EXCAVATION OF 2' WIDE OR 2 SQUARE FEET. LARGER PLATES ARE REQUIRED FOR ANY EXCAVATION LARGER THAN THOSE LISTED ABOVE. PLATES SMALLER THAN 4'X4'X1' ARE NOT ALLOWED IN THE TOWN ROW.



TYPE "A" PLATING

TOWN POSTED SPEEDS OF 30 MPH AND GREATER OR BUS OR TRUCK ROUTES TYPE "B" PLATING

TOWN POSTED SPEEDS

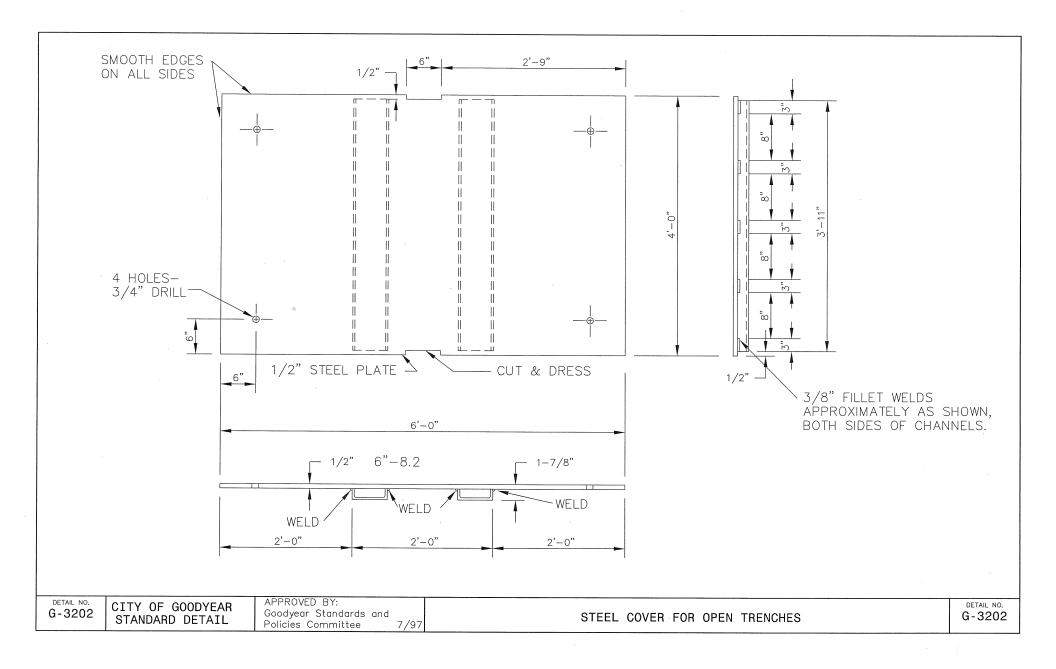
UNDER 30 MPH

DETAIL NO. 46

TOWN OF GILBERT STANDARD DETAIL

TRENCH PLATING

REVISED 1/2005



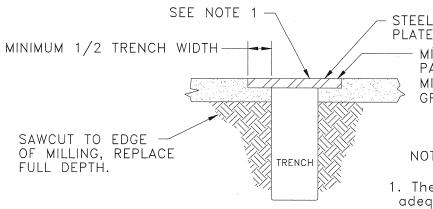
PEORIA DETAIL 149 TRENCH PLATING



APPROVALS:

CITY ENGINEER

DATE

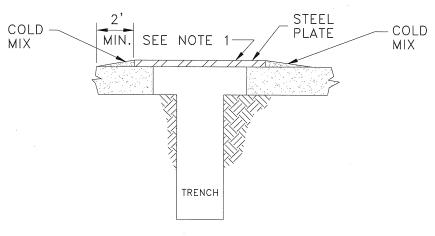


TYPE "A" PLATING

CITY POSTED SPEEDS OF GREATER THAN 25 MPH OR BUS & TRUCK ROUTE PLATE MILL 1" FOR STEEL PLATE, PACK JOINT WITH COLD MIX IF JOINT WIDTH IS GREATER THAN 1"

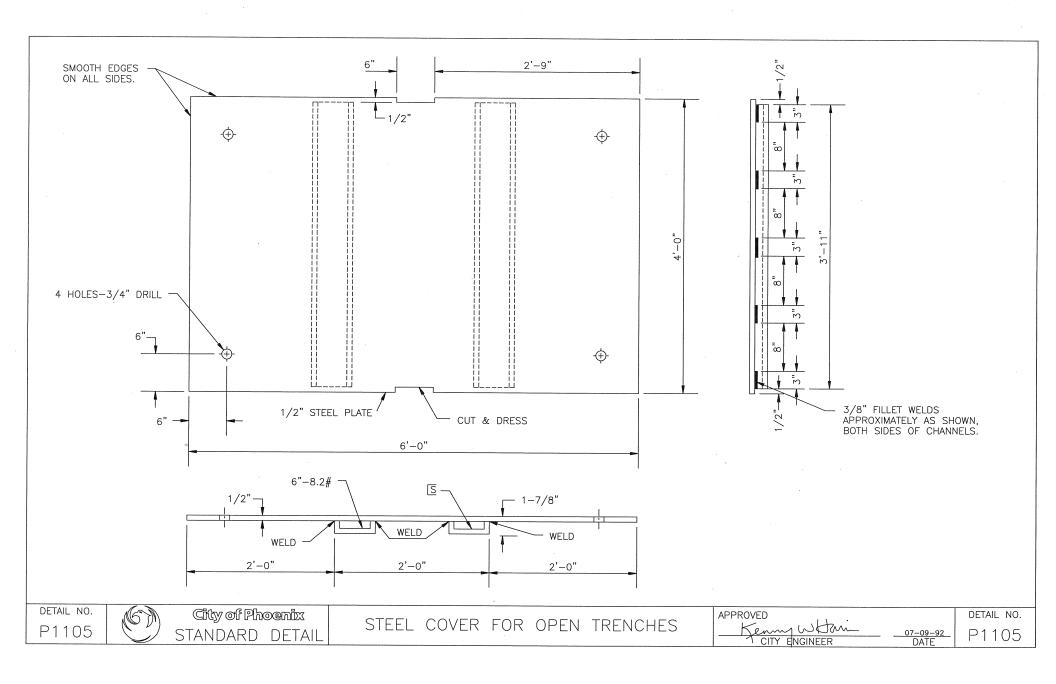
NOTES

- 1. The contractor shall provide adequate overlap of plate on asphalt to assure no slippage of plate and no collapsing of trench.
- 2. "Posted Speed" does not include temporary construction signing.



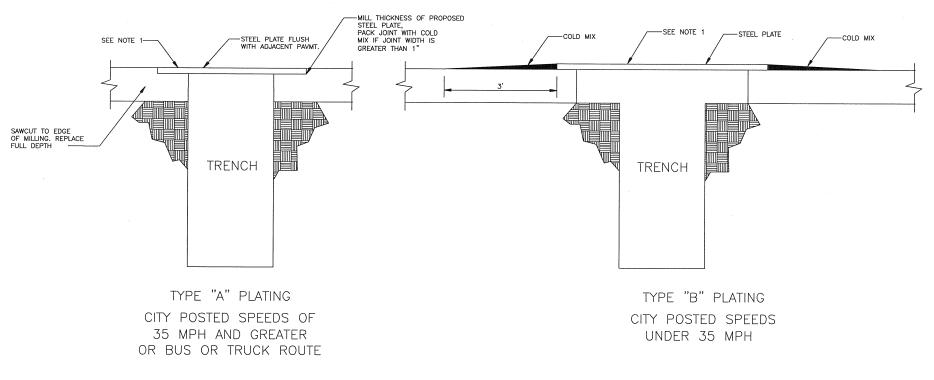
TYPE "B" PLATING

CITY POSTED SPEEDS OF 25 MPH AND UNDER



NOTES:

- PROVIDE 2' MIN. OVERLAP OF PLATE ON ASPHALT TO ASSURE NO SLIPPAGE OF PLATE AND NO COLLAPSING OF TRENCH.
- 2. "POSTED SPEED" DOES NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING.
- METHOD OF ASPHALT REMOVAL OTHER THAN MILLING AT INSPECTOR'S DISCRETION ONLY.



IF TRENCH LENGTH IS LESS THAN 5-FEET AND STEEL PLATES WILL BE IN PLACE LESS THAN 48 HOURS, STEEL PLATES MAY BE PLACED DIRECTLY ON EXISTING ASPHALT WITHOUT MILLING. PROVIDE TEMPORARY ASPHALT TRANSITIONS EXTENDING 3-FEET BEYOND EDGE OF STEEL PLATES.

DETAIL NO. P1170

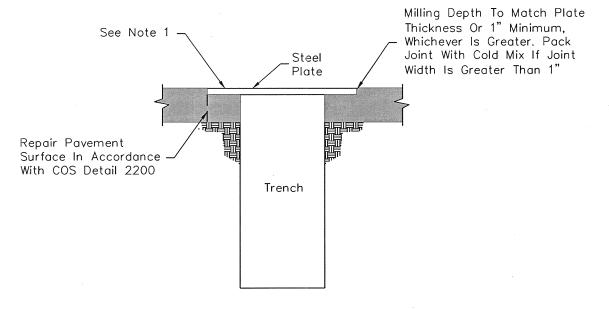


TRENCHING STEEL PLATE

APPROVED	Ī
-Duraster Mare (150)NEER	

NOTES:

- 1. The contractor shall provide adequate overlap of plate on asphalt to assure no slippage of plate and no collapsing of trench.
- 2. "Posted Speed" does not include temporary construction signing.



See Note 1

Cold
Mix

Steel Cold
Mix

Trench

Trench

TYPE "A" PLATING

CITY POSTED SPEEDS OF 35 MPH AND GREATER OR BUS & TRUCK ROUTE

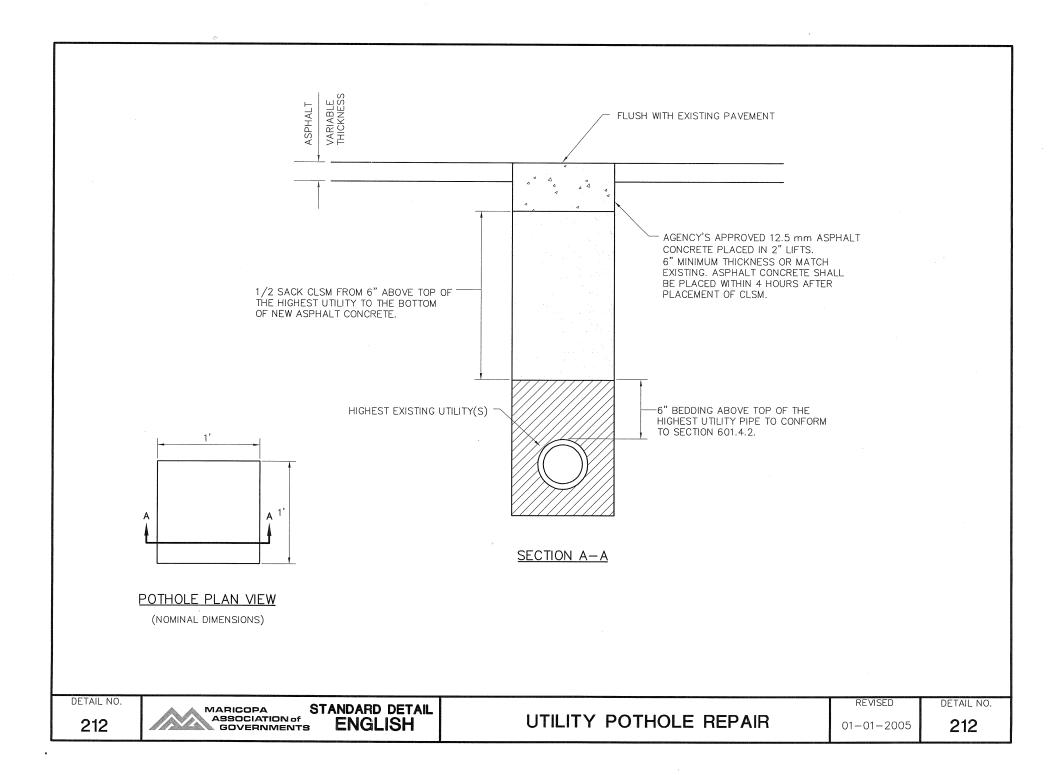
TYPE "B" PLATING

CITY POSTED SPEEDS UNDER 35 MPH

DETAIL NO. **2202**

City of Scottsdale Standard Details APPROVED BY:
Scottsdale Standards &
Specifications Committee

TRENCH PLATING

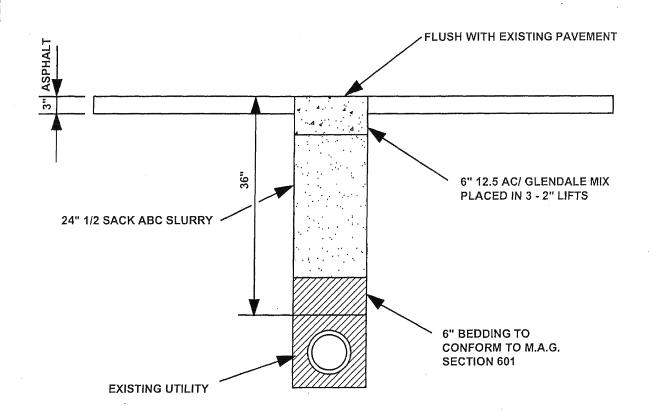


STANDARD DETAIL G-691

CITY OF GLENDALE ENGINEERING



BACK FILL & ASPHALT REPLACEMENT STANDARD FOR UTILITY POTHOLES



J Brosles

NOTE: BACKFILL W/ 1/2 SACK
A.B.C. SLURRY TO WITHIN
6" OF FINISH ASPHALT
GRADE. THEN PLACE 6"
OF C.O.G. APPROVED
12.5mm ASPHALT WITHIN
4 HOURS OF PLACING THE
A.B.C. SLURRY.

APPROVED BY:

CITY ENGINEER

6/28/02

POTHOLE COVER ANCHOR SYSTEM

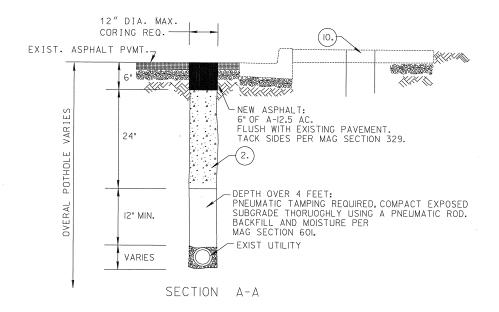
N.T.S.

NOTES

- 1. TEMPORARY POTHOLE PROTECTION IS ONLY TO BE USED WITH PERMISSION OF ENGINEER.
- 2. POTHOLE EXCAVATION SHALL BE A MAXIMUM OF 12-INCHES IN DIAMETER.
- 3. POTHOLE COVER ANCHORING SYSTEM SHALL BE APPROVED BY ENGINEER PRIOR TO USE.
- 4. CONTRACTOR SHALL INSPECT COVERED POTHOLES DAILY AND SHALL IMMEDIATELY CORRECT ANY THAT SHOW MOVEMENT OR DISPLACEMENT. A LOG OF THE DAILY INSPECTIONS SHALL BE SUPPLIED TO THE INSPECTOR, SIGNED DAILY BY THE CONTRACTOR.
- 5. CONTACT BLUE STAKE AT (602) 263-1100 BEFORE ANY POTHOLING, EXCAVATING, OR BORING.

UTILITY POTHOLING IN C.O.T. R/W C/G (TYP.) POTHOLE TYPICAL S/W (TYP.) JOINT TYP. A CORES WITHIN I8* REQUIRES ONE

UNIFORM PATCH, PER DET. T-450



NOTES

- I. AN ENGINEERING RIGHT OF WAY PERMIT IS REQUIRED FOR ALL WORK DONE IN THE RIGHTS OF WAY.
- (2.) A 6" HOT MIX PERMANENT PATCH WILL BE PLACED OVER ONE OF THE FOLLOWING BACKFILL SECTIONS.
 - NATIVE BACKFILL WITH 10% CEMENT BY WEIGHT MIXED THROUGH OUT.
 - NATIVE BACKFILL WITH TOP TWO FEET CONSISTING OF PRE-MIX CONCRETE.
 - "PEA GRAVEL" FOR FULL DEPTH ON HOLES TO BE RE-EXCAVATED.
 - LEAN-MIX BACKFILL FOR FULL DEPTH, AS SHOWN BELOW.

LEAN MIX BACKFILL: PER YD. ONTY.
42Kg. (94Lbs.) - PORTLAND CEMENT
180Kg. (400 Lbs.) - WATER
1596Kg. (3547 Lbs.) - ABC
APPROXIMATE PROPORTIONS OF:
55%. COARSE AGGREGATE
(ASTM-C-33 SIZE 57)
45%. FINE AGGREGATE
(CONFORM TO SEC. 701.3)

- 3. NO STEEL PLATES OR PLUGS WILL BE ALLOWED IN ARTERIAL STREETS.
- 4. AN APPROVED TRAFFIC CONTROL PLAN MUST BE WITH THE CREW.
- 5. UNAUTHORIZED NIGHT-TIME DIGGING WILL NOT BE ALLOWED.
- 6. AT LEAST ONE HOLE AT EACH LOCATION MUST BE MARKED WITH THE INITIALS OF THE EXCAVATING COMPANY. A SPRAY PAINT STENCIL IS ACCEPTABLE.
- ALL POTHOLES MUST BE PERMANENTLY PATCHED WITHIN SEVEN WORKING DAYS OF COMPLETION OF WORK.
- 8. THE COMPANY DOING THE ACTUAL LOCATING WILL BE HELD ACCOUNTABLE FOR THE PERMANENT PATCH.
- 9. POTHOLES ON CONCRETE SIDEWALK RAMPS REQUIRE REMOVAL AND REPLACE ENTIRE CONCRETE RAMP PER C.O.T. DETAIL'S.
- POTHOLES ON CONCRETE SIDEWALKS OR DRIVEWAYS REQUIRE REMOVAL AND REPLACEMENT OF CONCRETE FROM JOINT TO JOINT, PER C.O.T. DETAIL'S.
- II. ALL BROKEN OR DISPLACED CONCRETE CURB & GUTTER, SIDEWALK, AND ASPHALT SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE CITY OF TEMPE ENGINEERING DIVISION.
- 12. ALL SPRINKLER, IRRIGATION SYSTEMS AND ANY OTHER UTILITIES THAT ARE DISTURBED IN THE COURSE OF THE WORK IN AREAS WHERE LANDSCAPE WILL REMAIN SHALL BE REPAIRED. THE REPAIRED SYSTEM SHALL MEET OR EXCEED THE CONDITIONS EXISTING PRIOR TO THE DISTURBANCE.
- 13. ALL TURF AND DESERT LANDSCAPING THAT ARE DISTURBED IN THE COURSE OF THE WORK SHALL BE REPAIRED. THE REPAIRS SHALL MEET OR EXCEED THE CONDITIONS EXISTING PRIOR TO THE DISTURBANCE.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS MANAGER
CITY ENGINEER

DATE

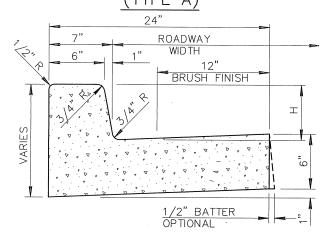
CITY OF TEMPE Public Works department

UTILITY POTHOLING

PERMANENT BACKFILL AND ASPHALT REPLACEMENT FOR UTILITY POTHOLES

DETAIL T-456

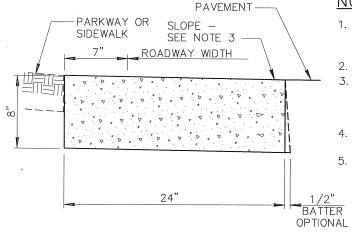
VERTICAL CURB AND GUTTER (TYPE A)



NOTES: (TYPE A)

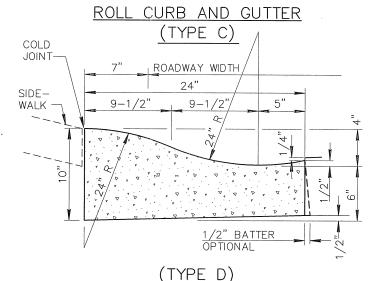
- 1. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN. SEE SECT. 340.
- 2. H=6" OR AS SPECIFIED ON PLANS.
- 3. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 4. EXPANSION JOINTS AS PER SECT. 340.
- 5. CLASS 'B' CONCRETE PER 725.

RIBBON CURB (TYPE B)

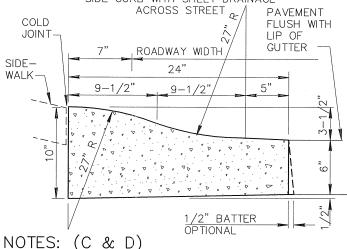


NOTES: (TYPE B)

- CONSTRUCT CURB AND INSTALL 1/2" MASTIC EXPANSION JOINTS, A.S.T.M. D-1751. SECT. 340.
- 2. BROOM FINISH ALL SURFACES.
- RIBBON CURB MAY SLOPE TOWARDS PAVEMENT OR PARKWAY AS INDICATED ON PLANS.
- 4. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 5. CONCRETE SHALL BE CLASS 'B'
 PER SECT. 725 AND INSTALLED
 PER SECT. 505.



SPECIAL SECT. USE FOR HIGH
SIDE CURB WITH SHEET DRAINAGE



- 1. ALL WORK AND MATERIALS SHALL CONFORM TO SECT. 304, 505 AND 725. BROOM FINISH TO EXPOSED SURFACE.
- 2. CONTRACTION JOINT SPACING 10' MAXIMUM.
- 3. EXPANSION JOINTS AS PER SECT. 340.
- 4. CLASS 'B' CONCRETE PER 725.

DETAIL NO.

220

MARICOPA ASSOCIATION of GOVERNMENTS

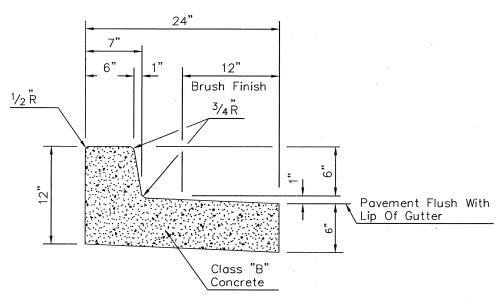
STANDARD DETAIL

ENGLISH

CURB AND GUTTER TYPES A, B, C AND D REVISED

DETAIL NO.

220

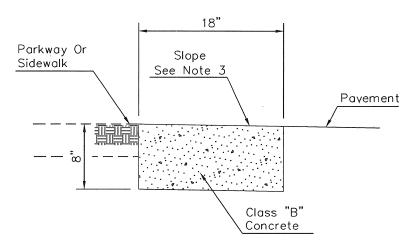


VERTICAL CURB & GUTTER WITH DEPRESSED LIP

TYPE "A"

NOTES

- 1. All exposed surfaces to be trowel finished except as shown. See M.A.G. Section 340.
- 2. Contraction joint spacing 10' maximum.
- 3. Construct curb and install ½ mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and COS Sec. 340.
- 4. Colored concrete shall be colored integrally.



RIBBON CURB TYPE "B"

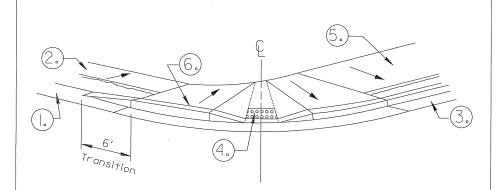
NOTES

- 1. Construct curb and install $\frac{1}{2}$ mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and COS Sec 340.
- 2. Broom finish all surfaces.
- Ribbon curb may slope towards pavement or parkway. Match cross slope of road unless indicated otherwise on plans.
- 4. Contraction joint spacing 10' maximum.
- 5. Colored concrete shall be colored integrally.

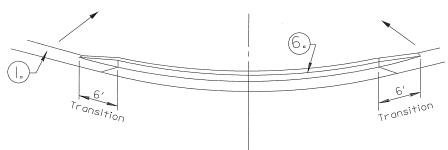
2220 City of Scottsdale Standard Details

APPROVED BY:
Scottsdale Standards &
Specifications Committee

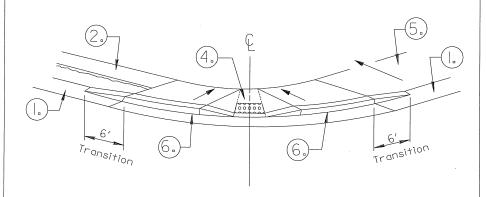
CURB AND GUTTER - TYPES A & B



MID - SECTION COLLECTOR - ARTERIAL



NO SIDEWALK
LOCAL - LOCAL
LOCAL - COLLECTOR
COLLECTOR - COLLECTOR



LOCAL - LOCAL

MID - SECTION COLLECTOR - LOCAL

MID - SECTION COLLECTOR - COLLECTOR

NOTES

INDICATES DIRECTION OF DRAINAGE

- I.) CONCRETE RIBBON CURB (PER MAG STD. DET. NO. 220-B)
- WIDTH OF CONC. SIDEWALK SHALL BE 8' ALONG ARTERIAL STREETS, 6' ELSEWHERE. 5'-6" LOCAL STREETS MAY BE APPROVED BY CITY. (PER MAG DTD. DET. NO. 230)
- $\left(3.\right)$ CONCRETE VERT.CURB & GUTTER (PER MAG STD.DET.NO.220-A,H=7")
- (4.) CONCRETE SIDEWALK RAMPS SEE RAMP PREFERENCE IN DETAIL T-115. UNDER "REFER TO TEMPE STANDARD DETAILS".
- (5.) CONCRETE SIDEWALK (PER C.O.T. DET T-345)
- (6.) CONCRETE VERTICAL CURB & GUTTER (PER MAG STD.DET.NO.220-A,H=4")

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER

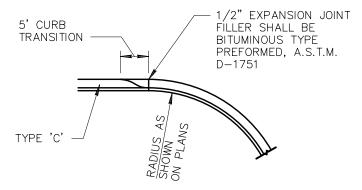
DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

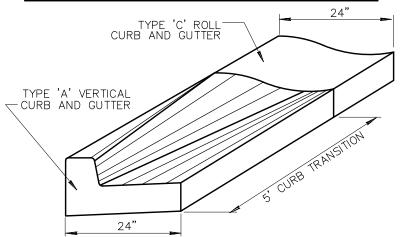
VERTICAL CURB RETURNS ON RIBBON CURB STREETS

DETAIL T-350
REVISED 2004

CURB AND GUTTER TRANSITION



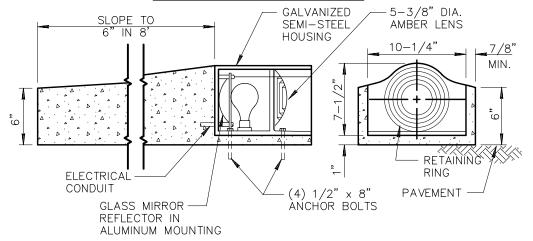
CURB TRANSITION TYPE 'A' TO TYPE 'C'



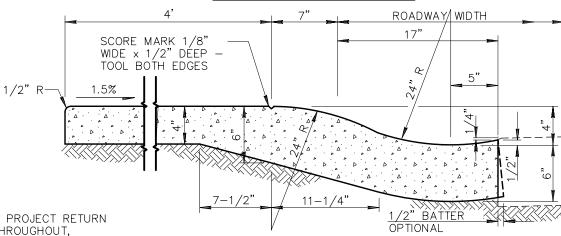
NOTES: (CURB AND GUTTER TRANSITIONS)

- 1. THE CURB TRANSITION WILL BE PAID FOR AS TYPE 'C'. WHEN A PROJECT RETURN AND GUTTER THROUGHOUT, THE ENTIRE RETURN AND GUTTER THROUGHOUT, THE ENTIRE RETURN SHALL BE MEASURED AND PAID FOR AS TYPE 'A'.
- 2. WHERE PROPOSED CONSTRUCTION IS TO BE CONNECTED TO EXISTING CURB AND GUTTER, THE TRANSITION SHALL BE INDICATED ON PLANS.
- 3. CLASS 'B' CONCRETE PER SECT. 725.
- 4. TRANSITION BETWEEN TYPICAL SECTIONS SHALL BE ACCOMPLISHED BY THE USE OF DIRECT STRAIGHT LINE TRANSITIONS OF THE FLOW LINE AND OTHER SURFACE FEATURES.

CURB WARNING BEACON



INTEGRAL ROLL CURB, GUTTER AND SIDEWALK



NOTES: (INTEGRAL ROLL CURB, GUTTER AND SIDEWALK)

- 1. CONCRETE TO BE MONOLITHIC POUR. EXPOSED SURFACE FINISH AS PER SIDEWALK AND GUTTER DETAIL.
- 2. CONTRACTION JOINT SPACING 5' MAXIMUM.
- 3. EXPANSION JOINTS PER SECT. 340.
- 4. CLASS 'B' CONCRETE PER SECT. 725.

DETAIL NO. **221**

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL ENGLISH

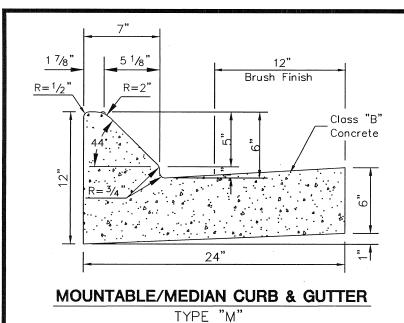
CURB AND GUTTER (TRANSITION, INTEGRAL & WARNING BEACON)

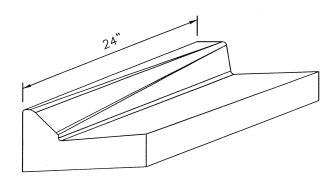
REVISED

DETAIL NO.

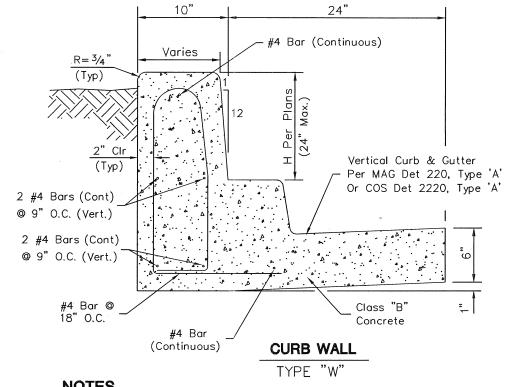
01-01-2007

221





MOUNTABLE CURB TO VERTICAL CURB TRANSITION



NOTES

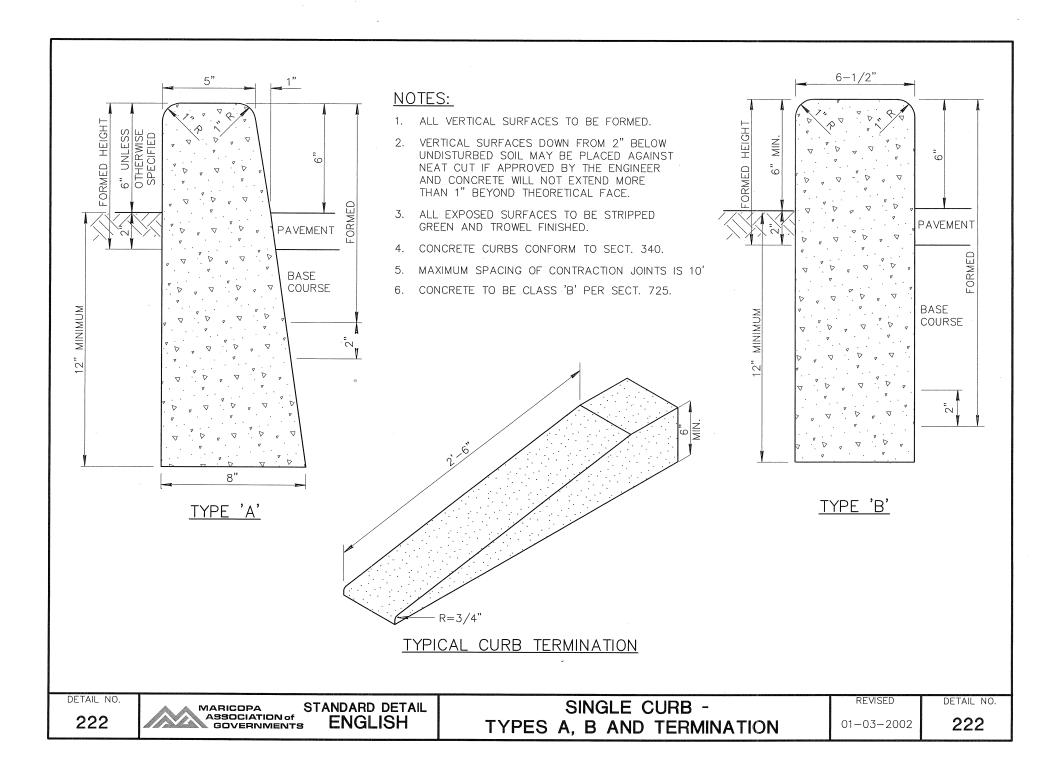
- 1. All exposed surfaces to be trowel finished except as shown. See M.A.G. Section 340.
- 2. Contraction joint spacing 10' maximum.
- 3. Construct curb and install $\frac{1}{2}$ mastic expansion joints, A.S.T.M. D-1751, per M.A.G. Sec. 340 & 729 and C.O.S. Sec. 340.
- 4. Gutter lip may be depressed where indicated on plans and constructed as shown on COS Detail 2220, Type "A".
- 5. Colored concrete, if called for on the plans, shall be colored integrally.
- Steel reinforcement Per M.A.G. Section 727.

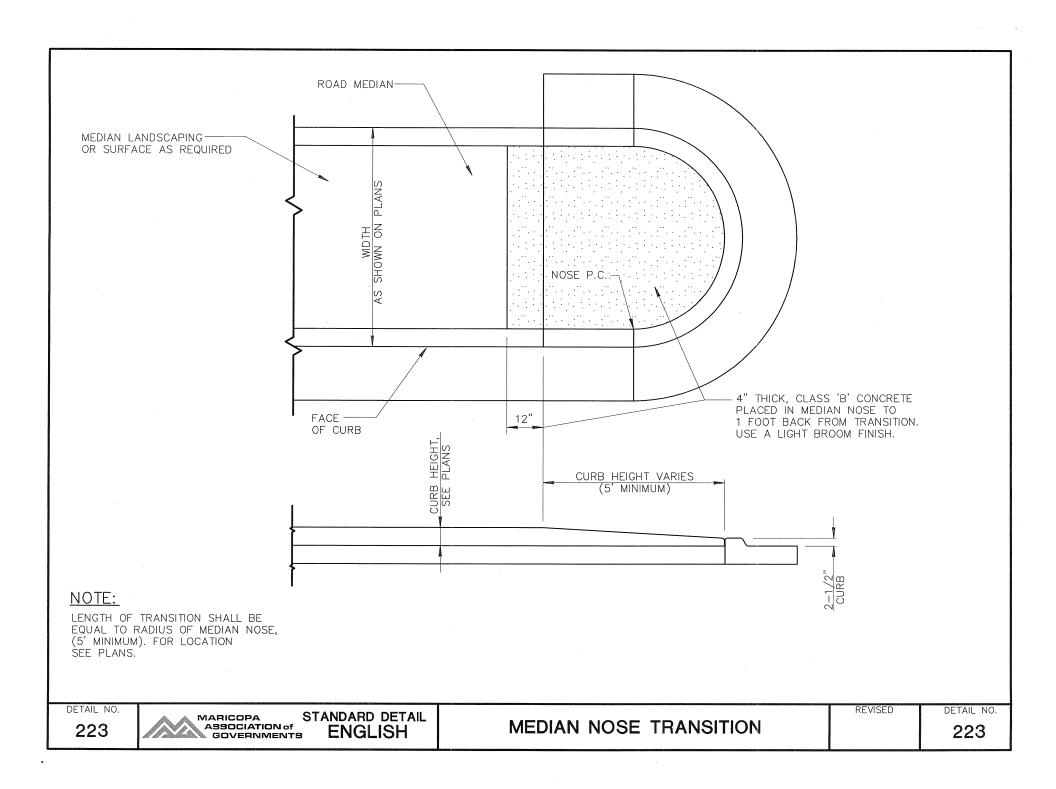
DETAIL NO. 2221

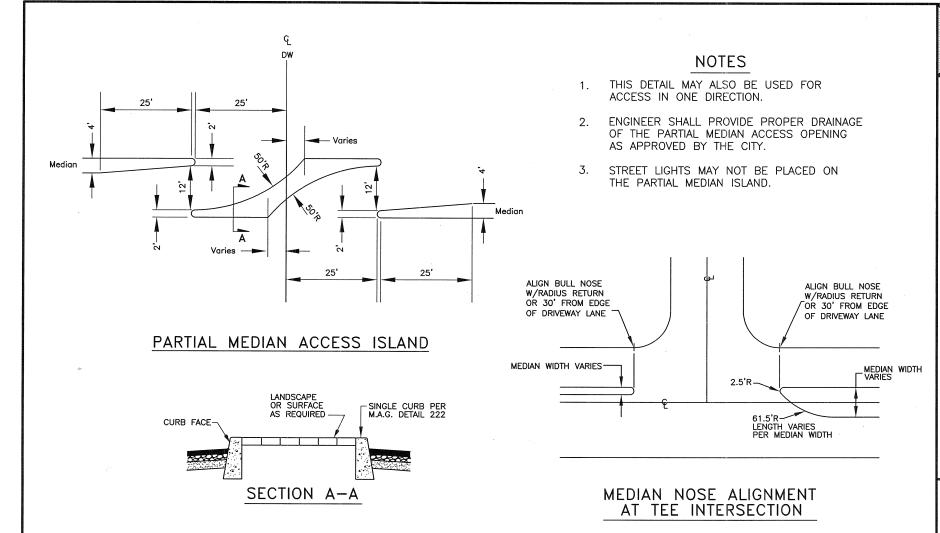
City of Scottsdale **Standard Details**

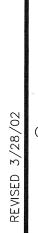
APPROVED BY: Scottsdale Standards & Specifications Committee

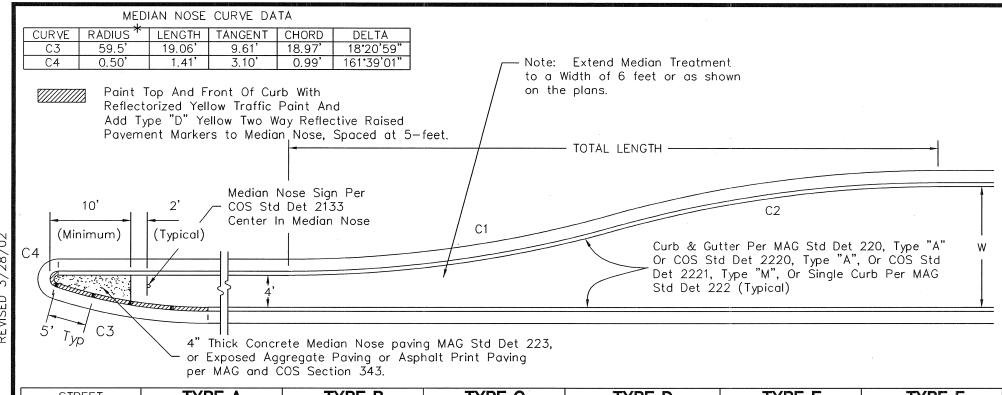
CURB & GUTTER - TYPES M & W











STREET		EA		EB		EC	1	ED		EE		PEF
CLASSIFICATION	COLLECTO		MINOR A		MAJOR A			TURN LANES	MINOR A		MAJOR	
TOTAL LENGTH	80.	49'	98.	89'	114	.36'	164	.53'	103	5.23'	153	3.62'
MEDIÁN WIDTH, W	1.5	5'	15	5'	1	5'	2	7'	16	5'	2	4'
CURVE NUMBER	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
RADIUS *	150.00'	150.00'	150.00'	300.00'	300.00'	300.00'	300.00'	300.00'	150.00	300.00'	300.00'	300.00
DELTA	15°33'49"	15°33'49"	12°41'40"	12°41'40"	10 ' 59'17"	10 ' 59'17"	15°54'56"	15 ° 54'56"	13°15'41"	13°15'41"	14 ° 50'06"	14°50'06"
LENGTH	40.75	40.75	33.23'	66.47	57.53'	57.53	83.33'	83.33'	34.72'	69.44'	77.68	77.68
TANGENT	20.50 '	20.50'	16.69'	33.37	28,86'	28.86	41,94'	41.94	17.44'	34.87	39.06'	39.06'
CHORD	40.62'	40.62'	33,17'	66.33'	57.45	57.45	83.07	83.07	34.64'	69.28'	83.07'	83.07

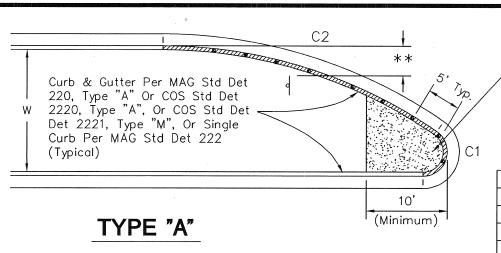
* ALL RADII AND DIMENSIONS TO BACK OF CURB

Curve Data Shown Is For Streets On Linear Alignments Only.

DETAIL NO. 2225 City of Scottsdale Standard Details

APPROVED BY: Scottsdale Standards & Specifications Committee

MEDIAN NOSE & REVERSE CURVE DETAILS



Paint Top And Front Of Curb With Reflectorized Yellow Traffic Paint And Add Type "D" Yellow Reflective Raised Payement Markers to Median Nose _4" Thick Concrete
Median Nose Paving
MAG Std Det 223, or
Exposed Aggregate Paving
or Asphalt Print Paving
per MAG and COS Section
343 (Typical)

- * ALL RADII AND DIMENSIONS TO BACK OF CURB
- ** OFFSET TO BE NO MORE THAN
 3' FROM FACE OF CURB AT
 TANGENT TO EDGE OF SIGN

★CURVE DATA - W=15'									
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA				
C1	2.50'	6.35	8.06'	4.78'	145°32'39"				
C2	59.50'	35.78'	18.45'	35.24'	34°27'21"				
С3	2.50'	5.74'	5.57'	4.56'	131°38'42"				
C4	59.50'	25.11'	12.74	24.92'	24°10'39"				

★CURVE DATA - W=16'									
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA				
C1	2.50'	6.27	7.65	4.75	143°48'20"				
C2	59.50'	37.59	19.44	36.97	36°11'40"				
С3	2.50'	5.64'	5.27'	4.52'	129°14'46"				
C4	59.50'	26.35	13.40'	26.14	25°22'37"				

∗CURVE DATA - W=24'									
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA				
C1	2.50'	5.75'	5.59'	4.56'	131°48'37"				
C2	59.50'	50.04	26.61'	48.58	48°11'23"				
С3	2.50'	4.93'	3.77'	4.17'	112°53'08"				
C4	59.50'	34.85'	17.94	34.35'	33°33'26"				

Median Nose Sign Per COS Std Det 2133 (Typical)

Nose, Spaced at 5-feet.

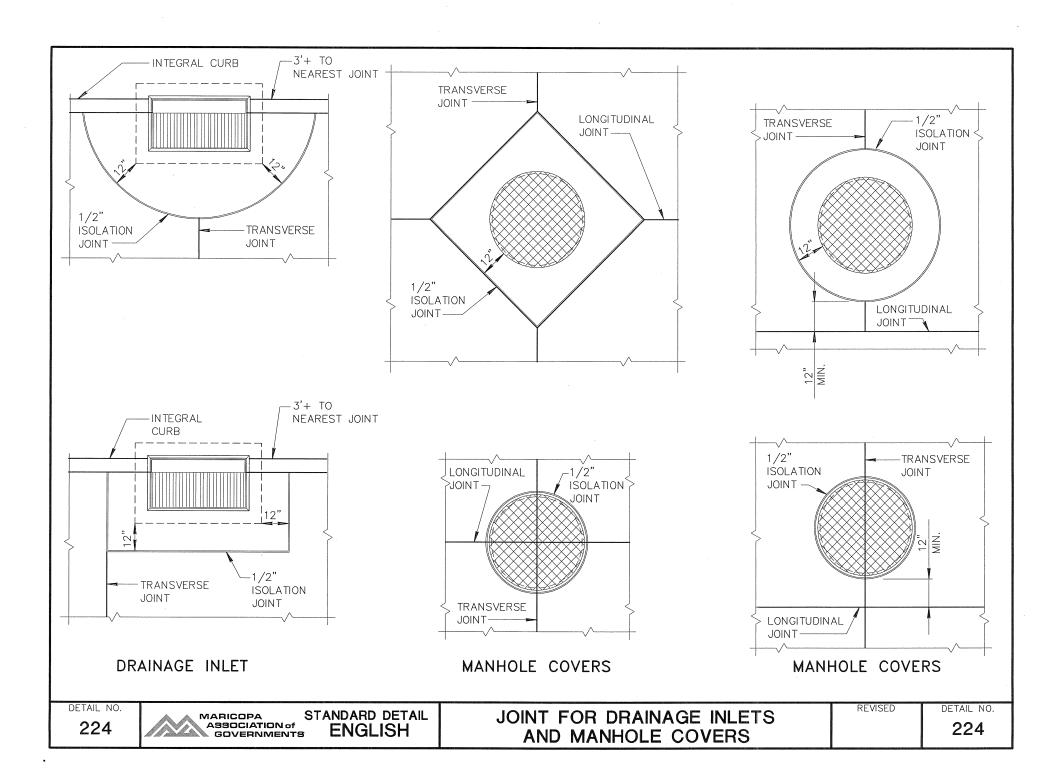
2226 City of Scottsdale Standard Details

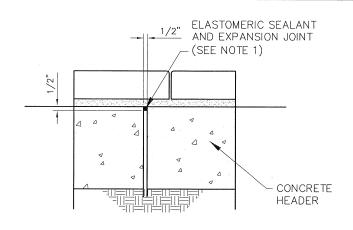
APPROVED BY:
Scottsdale Standards &
Specifications Committee

(Minimum)

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MEDIAN NOSE DETAILS

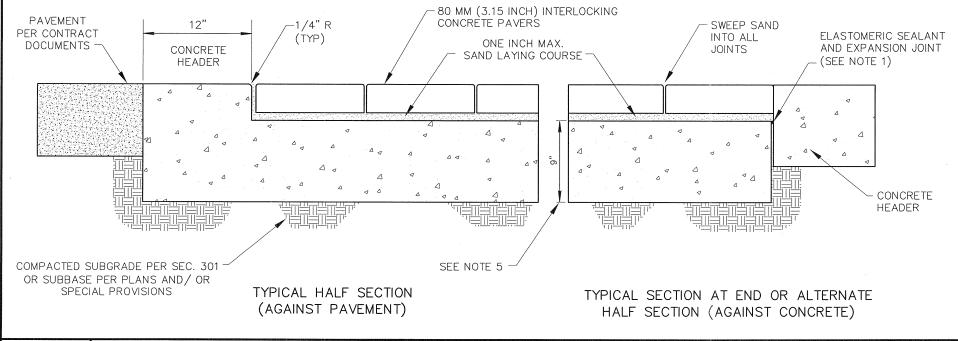




EXPANSION JOINT DETAIL

NOTES:

- 1. 1/2 INCH EXPANSION JOINT, ASTM D-1751 PER SEC. 729 AND ELASTOMERIC SEALANT PER SEC. 342
- 2. CONTRACTION JOINTS PER SEC. 342
- 3. MATERIALS AND CONSTRUCTION PER SEC. 342
- 4. PORTLAND CEMENT CONCRETE SHALL BE CLASS A
- 5. DESIGN PARAMETERS FOR THE THICKNESS IS BASED ON: ASSUMES MODULUS OF SUBGRADE REACTION (K) = 100 pci CONCRETE WORKING STRESS (f1) = 300 psi TERMINAL SERVICABILITY INDEX (p1) OF 2.5 OVER 20 YEARS AND 1 MILLION TOTAL EQUIVALENT 18-KIP SINGLE-AXLE LOAD APPLICATIONS.



DETAIL NO. **225**

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL

ENGLISH

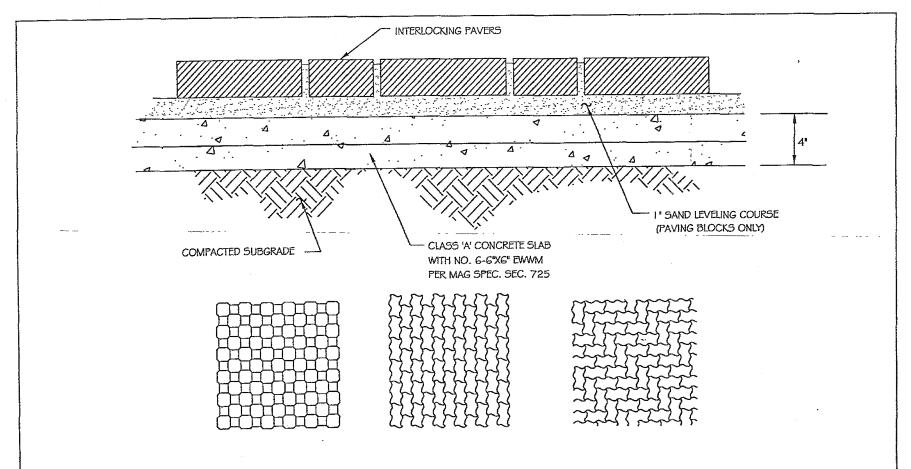
CONCRETE PAVERS

REVISED

DETAIL NO.

01-01-2005

225

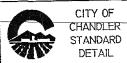


APPROVED PATTERNS

NOTES:

- 1. 12" MINIMUM CONCRETE RIBBON TO BE PLACED ON THE SIDES AND AT THE BEGINNING AND END OF PAVERS.
- 2. COLOR TO BE DETERMINED AT THE TIME OF PLAN SUBMITTAL WITH A SAMPLE PROVIDED. COLOR TO BE LIMITED TO A RED OR GREY COLOR TONE.
- 3. DEVELOPER SHALL SUPPLY THE CITY 100 EACH REPLACEMENT PAVERS.

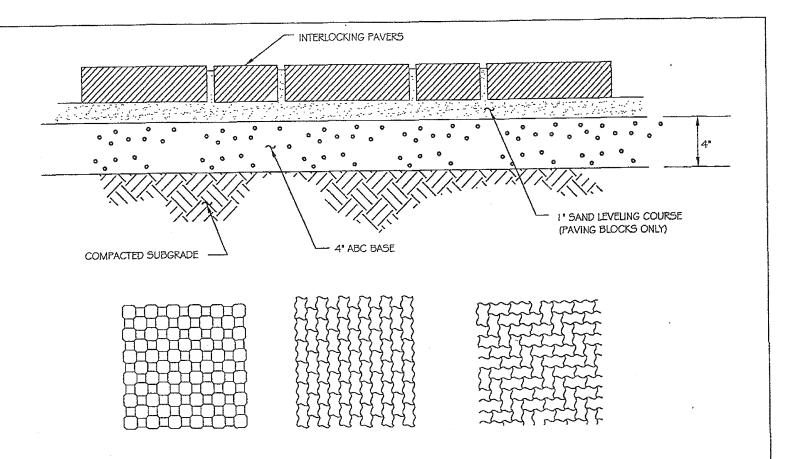
C-236



AND DECORATIVE CONCRETE
TRAVELED SURFACE

APPROVED: OTY ENGINEER
DATE: //-/9-99

C-236



APPROVED PATTERNS

NOTES:

- 1. 12" MINIMUM CONCRETE RIBBON TO BE PLACED ON THE SIDES AND AT THE BEGINNING AND END OF PAVERS.
- 2. COLOR TO BE DETERMINED AT THE TIME OF PLAN SUBMITTAL WITH A SAMPLE PROVIDED. COLOR TO BE LIMITED TO A RED OR GREY COLOR TONE.
- 3. DEVELOPER SHALL SUPPLY CITY WITH 100 EACH REPLACEMENT PAVERS.

C-237
REPLACES
14B



INTERLOCKING PAVING BLOCKS
AND DECORATIVE CONCRETE
NON-TRAVELED SURFACE

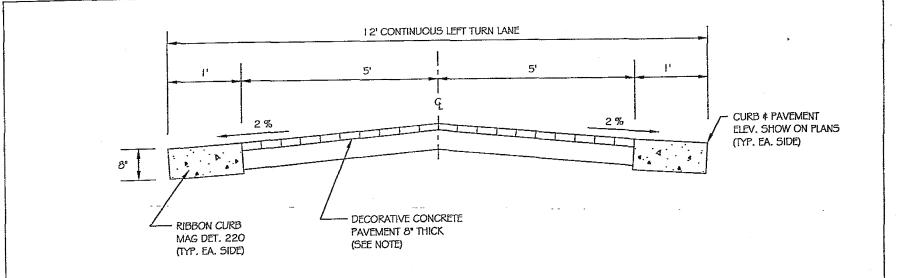
APPROVED: DITY ENGINEER

DATE: 11-19-99

C-237

DETAIL NO.

NTS



NOTE:

1. DECORATIVE CONCRETE SHALL BE COMMON BRICK PATTERN CONSTRUCTED IN ACCORDANCE WITH MAG SPEC. 340 WITH A MINIMUM THICKNESS OF 8". DECORATIVE SURFACE SHALL BE 3000 PSI MIX (6 SACK MIN.) IF NOT POURED MONOLITHICALLY IT SHALL BE POURED WITHIN 4 HOURS OF THE BASE COURSE WITH A MINIMUM THICKNESS OF 1-1/2" AND FINISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. COLOR TO BE APPROVED BY CITY ENGINEER.

C-238 REPLACES

14C



DECORATIVE CONCRETE AT GRADE
TRAVELED SURFACE

APPROVED: DTY ENGINEER
DATE: 11-19-99

C-238

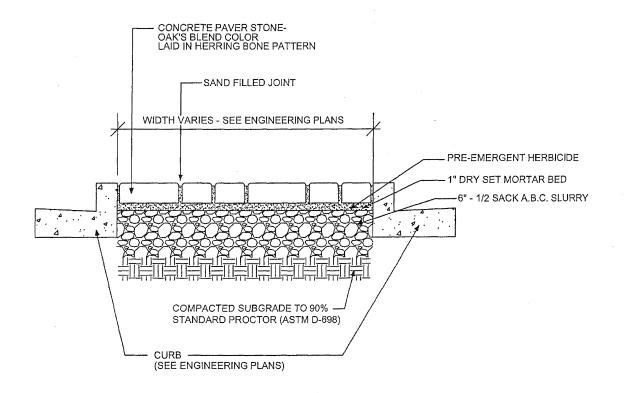
NTS

STANDARD DETAIL G-328

CITY OF GLENDALE **ENGINEERING**



PAVING BLOCKS FOR MEDIANS



NOT TO SCALE

Broslos Waslos DATE APPROVED BY:

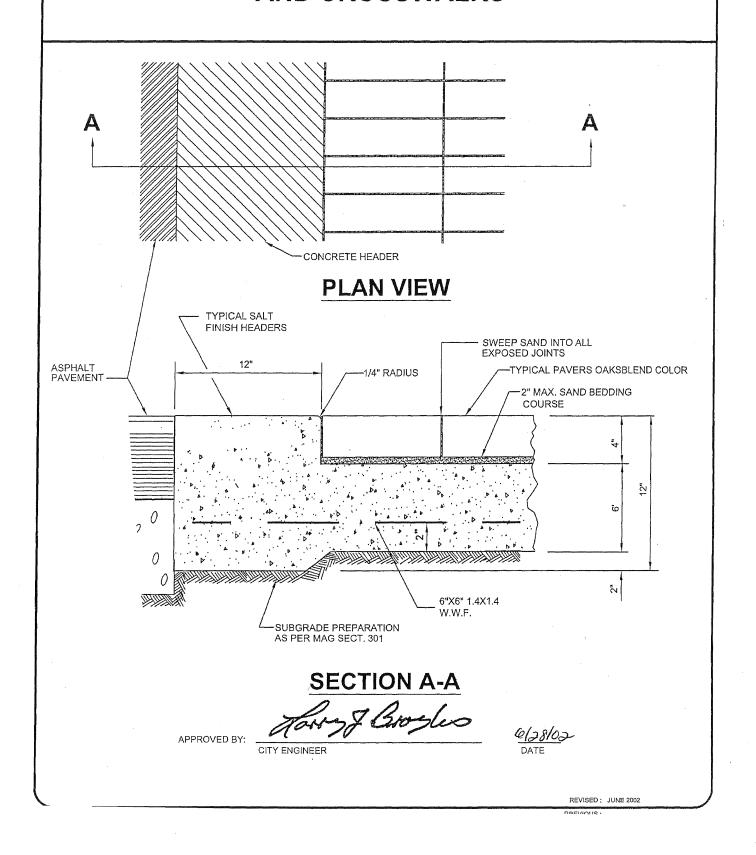
REVISED: JUNE 2002

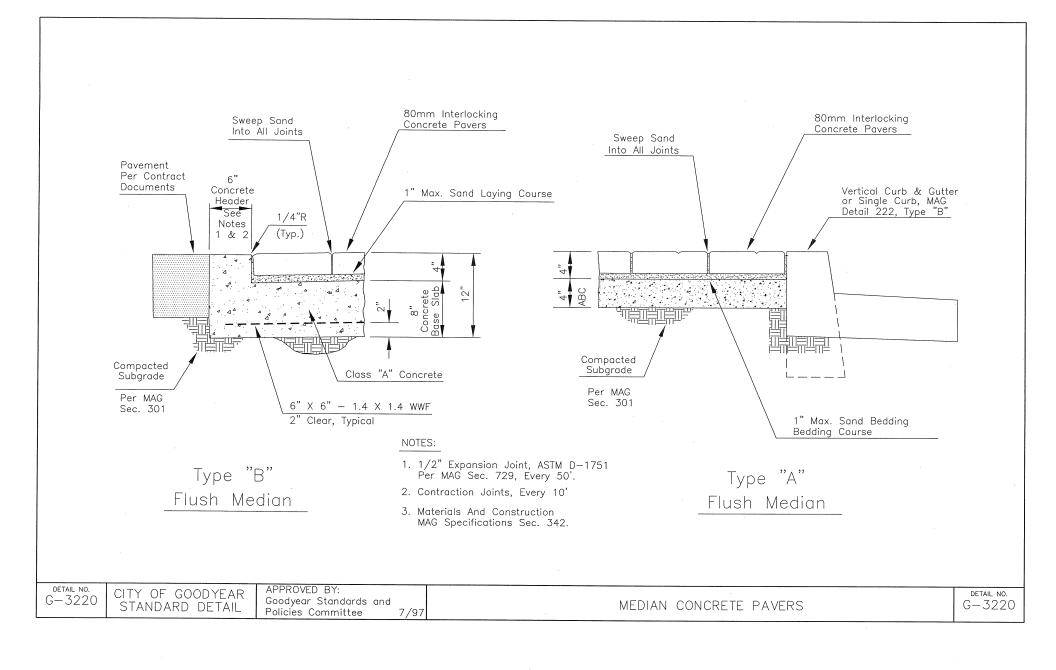
STANDARD DETAIL G-329

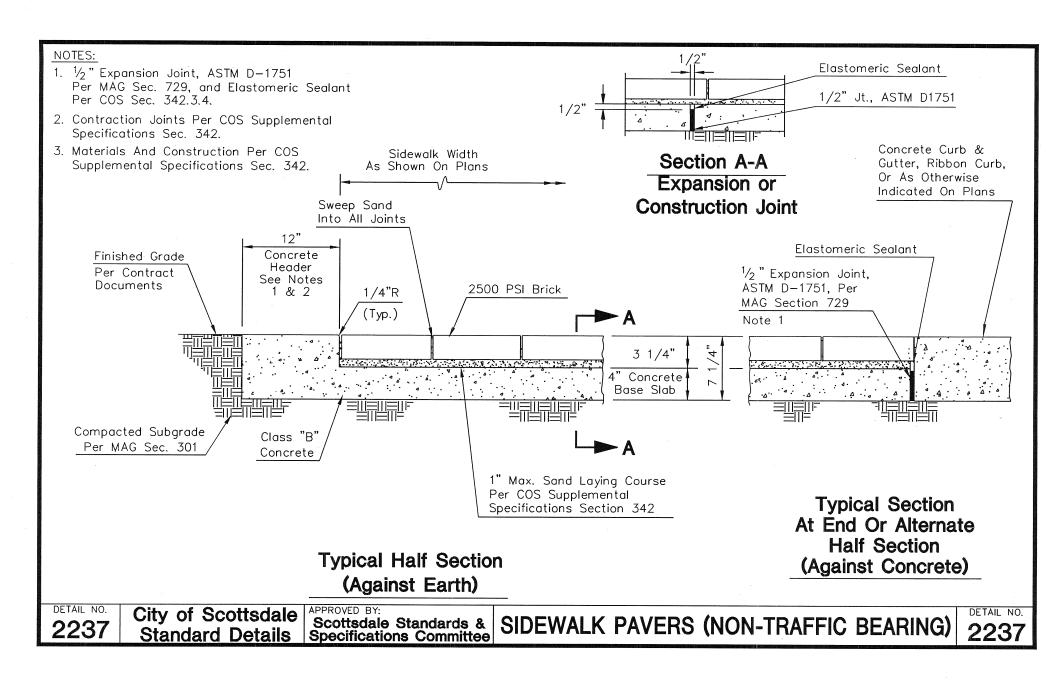
CITY OF GLENDALE ENGINEERING

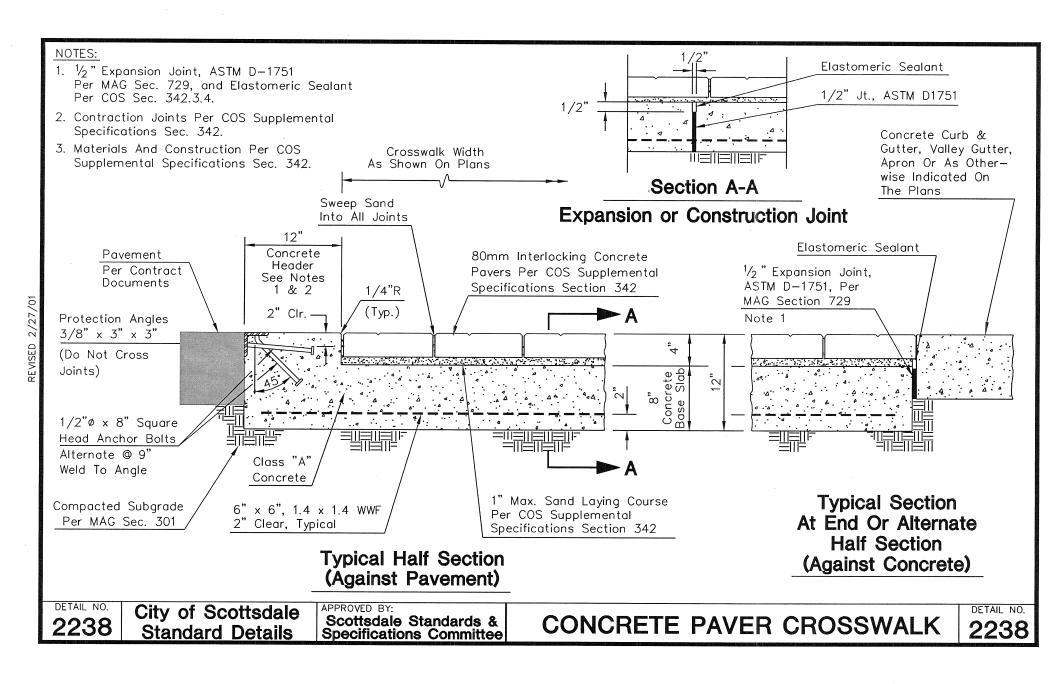


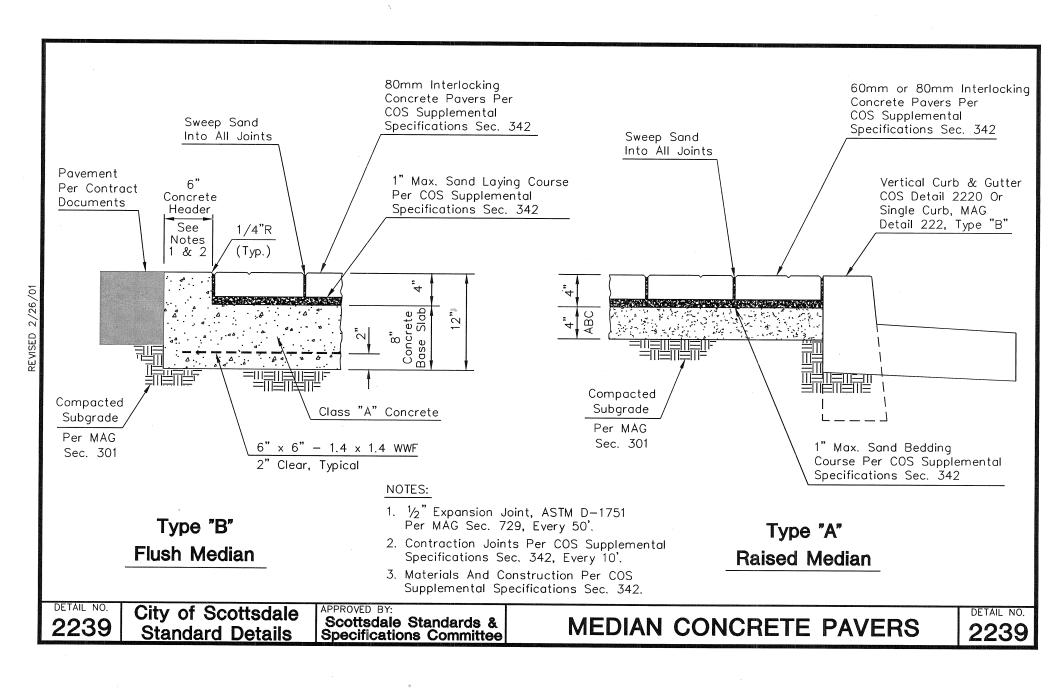
PAVING BLOCKS FOR PUBLIC STREETS AND CROSSWALKS

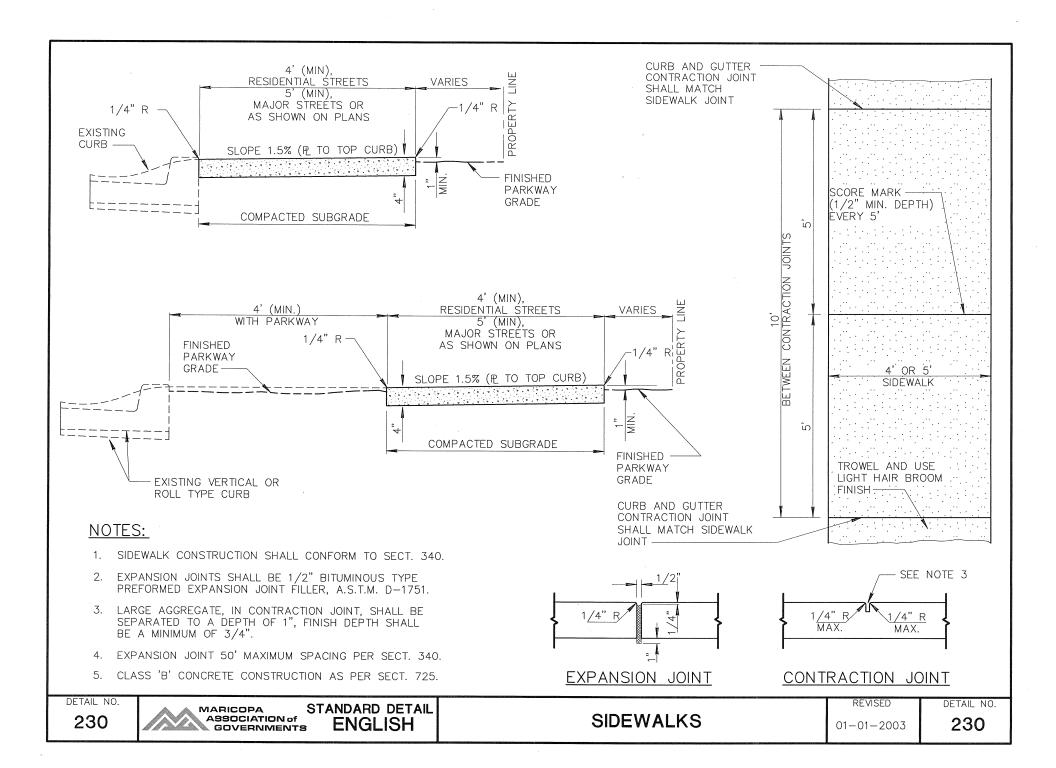


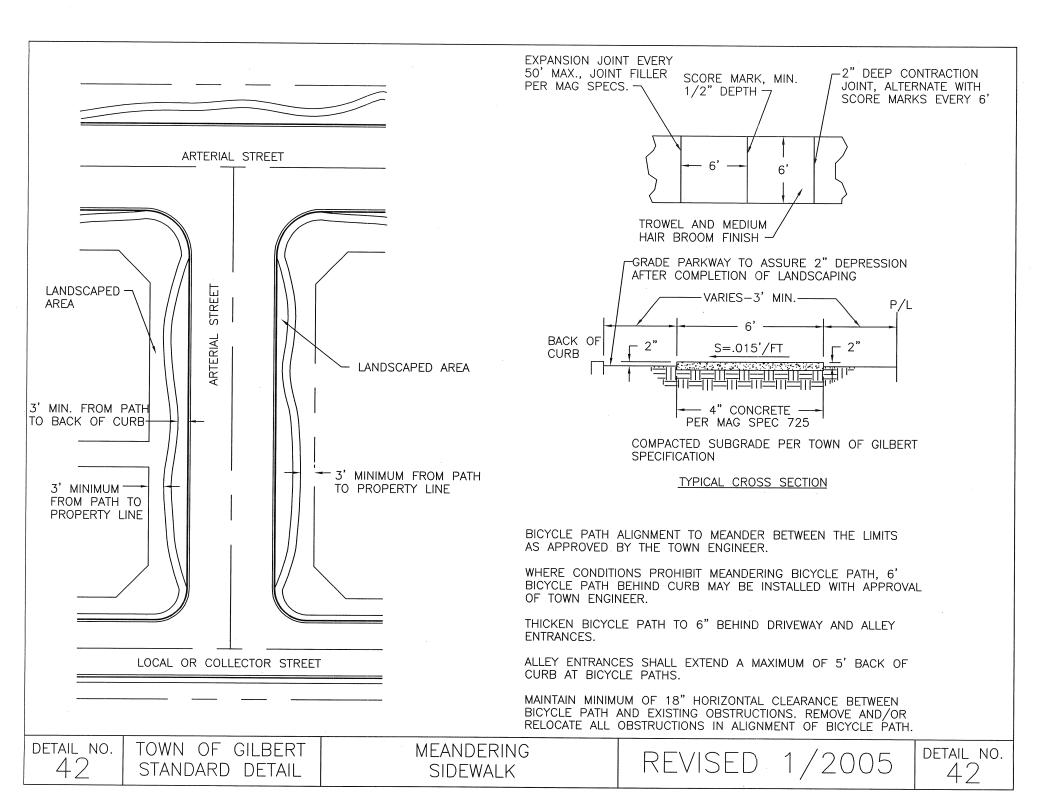


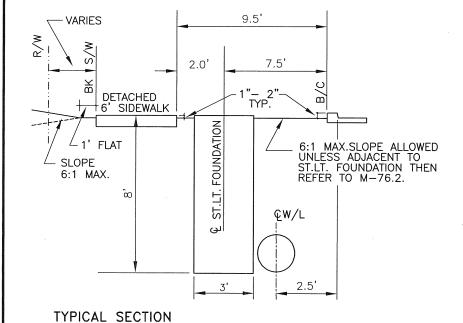












MAY NOT APPLY WITHIN 600 FEET OF AN INTERSECTION. SEE

DETAILS M-46.1 AND M-46.2.

STD. DETAIL 230

R/W

LANDSCAPE

ST. LT. FOUNDATION

WATER LINE

CURB & GUTTER PER
MAG STD DETAIL 220, TYPE A

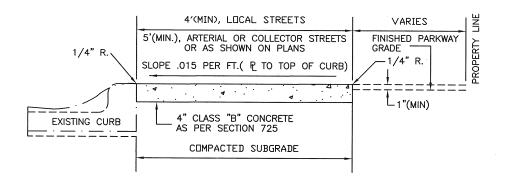
TYPICAL PLAN VIEW

NOTES

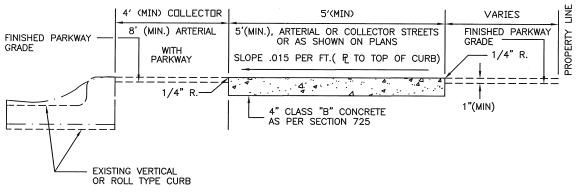
SIDEWALK PER M.A.G. STD. DETAIL 230 —

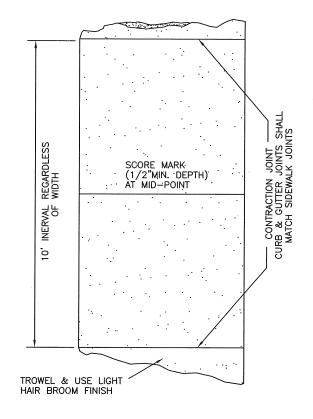
- 1. SIDEWALKS SHALL BE PER MAG STD DETAIL 230 WITH A MINIMUM 6-FOOT WIDTH UNLESS OTHERWISE APPROVED BY THE CITY. SIDEWALKS AT BRIDGE STRUCTURES SHALL HAVE A MINIMUM WIDTH OF 8-FEET UNLESS OTHERWISE APPROVED BY THE CITY.
- 2. ATTACHED SIDEWALK OR REDUCED SIDEWALK SETBACK MAY BE ALLOWED IN CASES WHERE RIGHT OF WAY OR EASEMENTS ARE LIMITED.
- 3. IN THOSE LOCATIONS WHERE THIS DETAIL CANNOT BE APPLIED BECAUSE OF EXISTING CONDITIONS, REFER TO M.A.G. DETAIL 230 FOR MINIMUM SIDEWALK SETBACK.

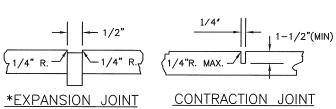
THIS DETAIL IS A GUIDE FOR INSTALLATION OF DETACHED SIDEWALKS. EACH PROJECT SITE SHALL BE REVIEWED FOR FINAL APPROVAL BY THE CITY OF MESA.



- 1. SIDEWALK CONSTRUCTION SHALL CONFORM TO SECTION 340.
- 2. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751.
- EXPANSION JOINTS SHALL BE INSTALLED PRIOR TO ALL POURS, AT POINTS OF CURVATURE, AT ADJOINING STRUCTURES, AT DRIVEWAYS AND AT A MAXIMUM SPACING OF 50'. THE EXPANSION JOINT MUST PROVIDE FOR COMPLETE SEPARATION OF THE SIDEWALK FROM ADJOINING CONCRETE.
- * 4. THE EXPANSION JOINT MATERIAL SHALL EXTEND FROM THE SURFACE OF THE SIDEWALK TO 1" INTO THE SUBGRADE.
- ** 5. WHEN SIDEWALK AND ADJACENT CURB ARE INSTALLED MONOLITHICALLY, THE MID-POINT SCORE LINE MUST EXTEND ACROSS THE CURB.







* REV. 11/1/84

** REV. 6/92

DETAIL NO. P1230



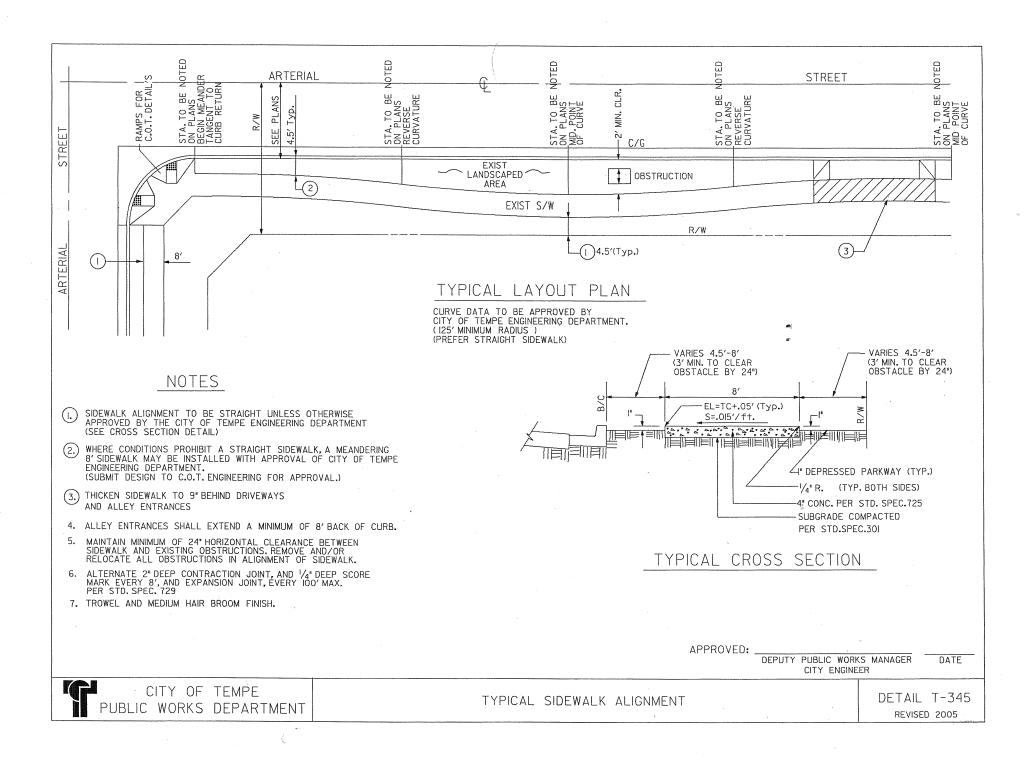
APPROVED SIDEWALKS

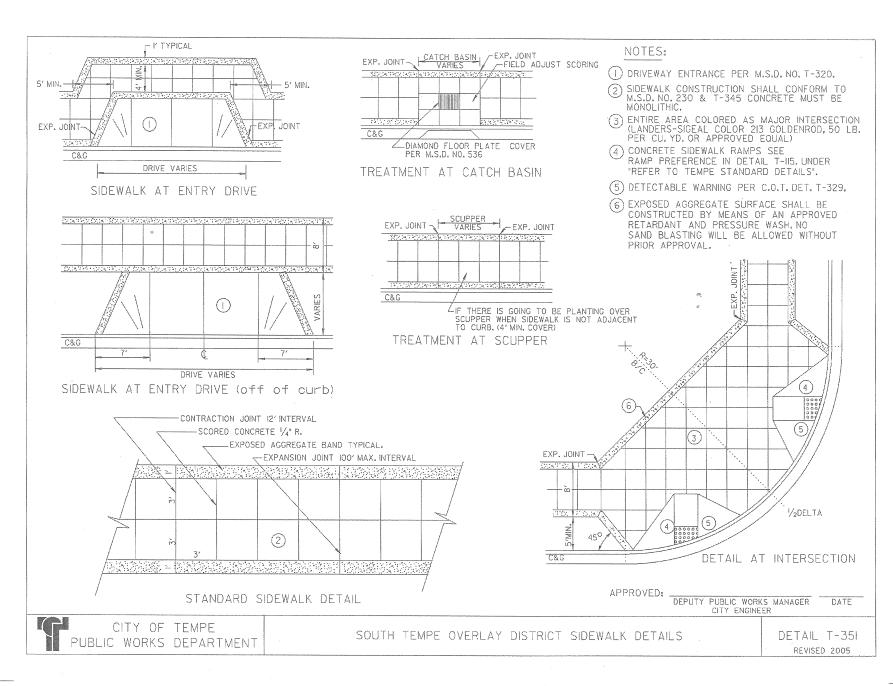
Manus Saldamando CITY ENGINEER

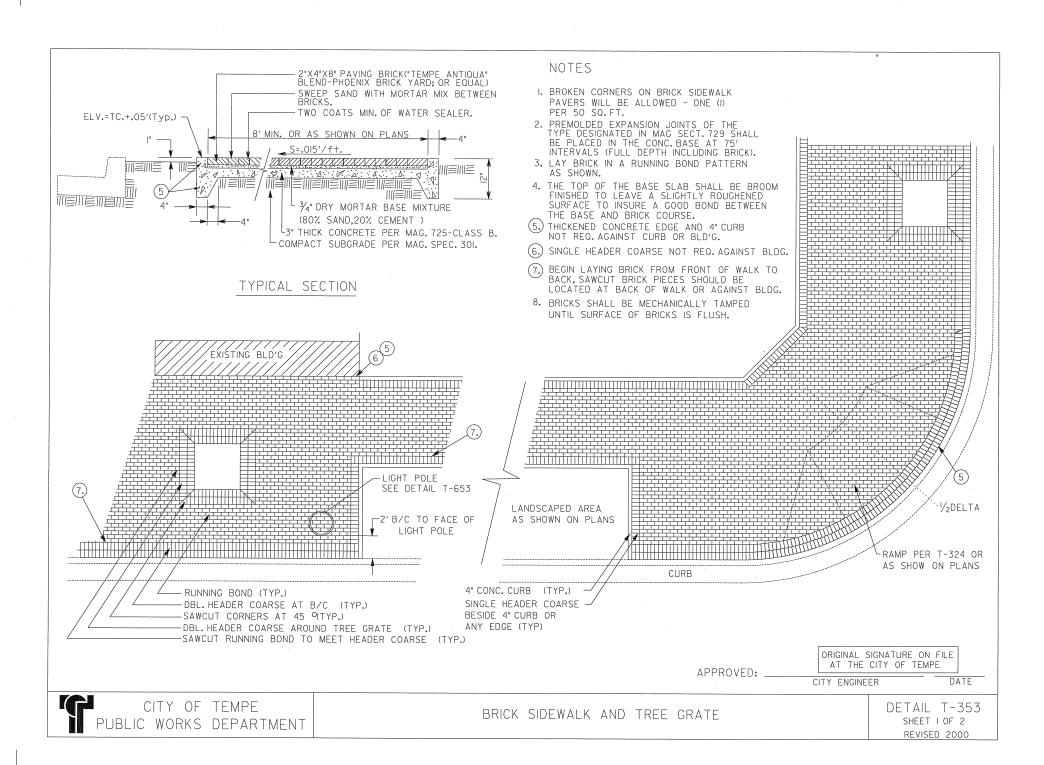
DETAIL NO. 08-08-03

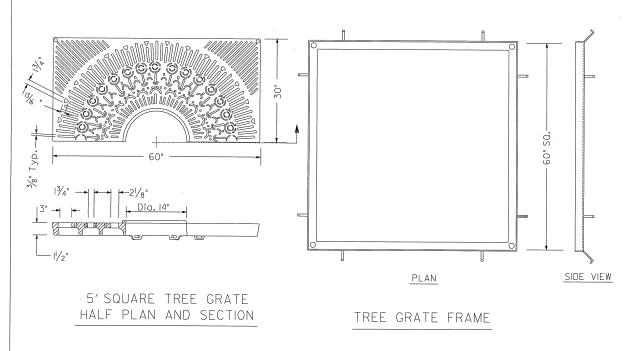
DATE

P1230



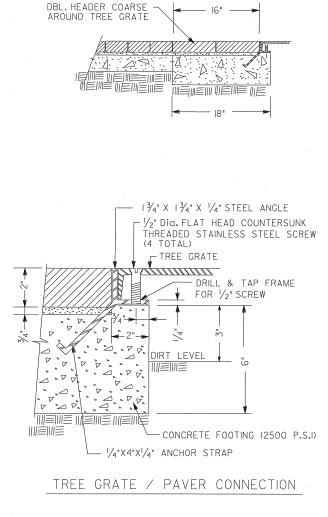








- TWO PIECE GRATE WITH NARROW OPENINGS FOR SPECIAL PEDESTRIAN REQUIREMENTS, (60° SO. OR AS SHOWN ON PLANS.). STYLE CAST IRON FRENCH PATTERN MADE BY NEENAH FOUNDRY COMPANY MODEL NO. R-8757 (OR APPROVED EQUAL).
- PRE-ASSEMBLED HALF SECTIONS BOLT TOGETHER W/SPLIT RINGS TO PREVENT UNAUTHORIZED REMOVAL.
- GRATE PAINT 5 MIL FINISH FLAT BLACK POWDER COAT
- PAINT STEEL FRAME ONE COAT PRIME AND TWO COATS FLAT BLACK ENAMEL.
- PROVIDE 2 SCREWS MIN. PER HALF SECTION OF GRATE.
- TREE GRATE FRAME WELD MITERED 4 CORNER JOINTS.
- PREASSEMBLE GRATE & FRAME AND ADJUST FRAME TO PREVENT GRATE WOBBLE.





BRICK SIDEWALK AND TREE GRATE

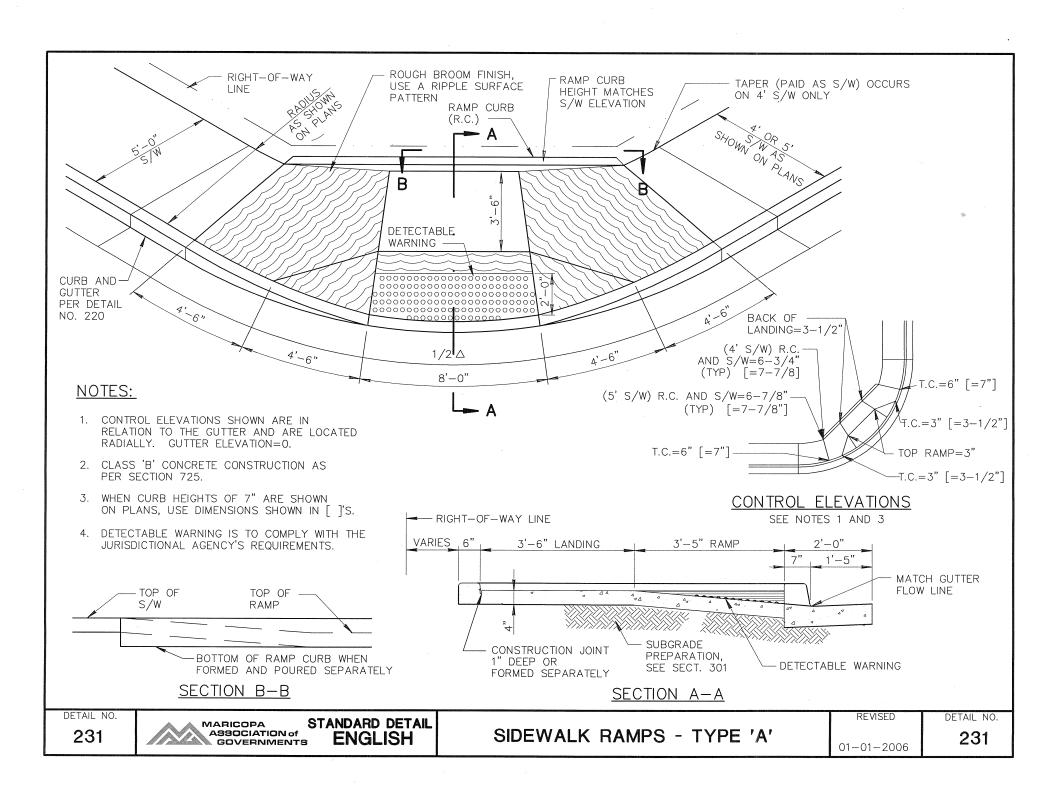
APPROVED: .

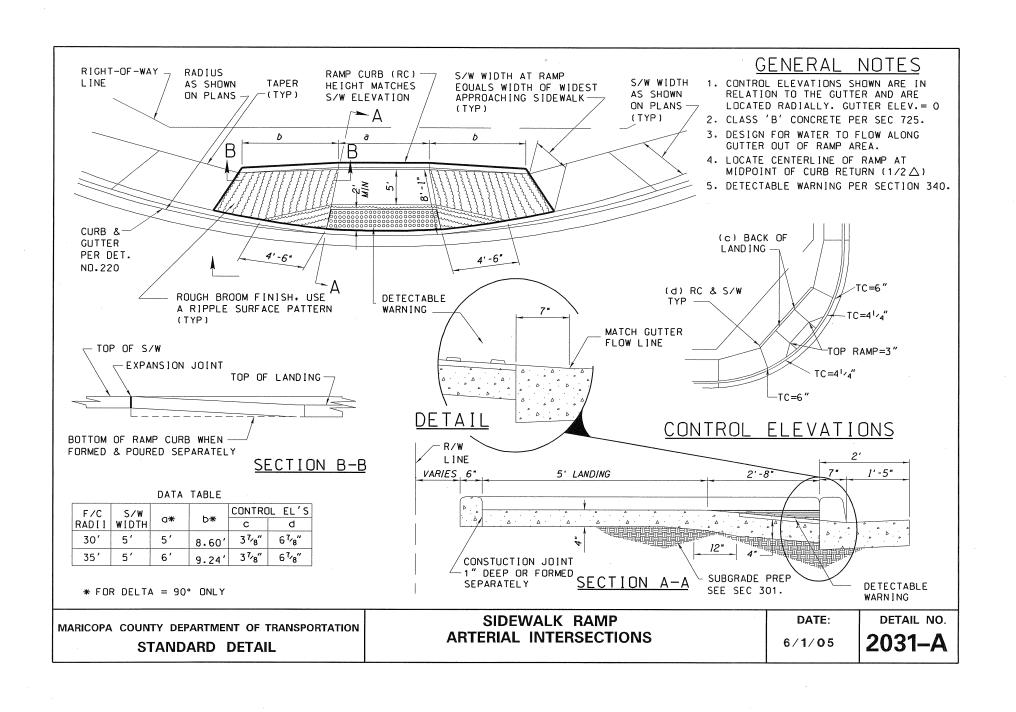
DETAIL T-353 SHEET 2 OF 2 REVISED 2000

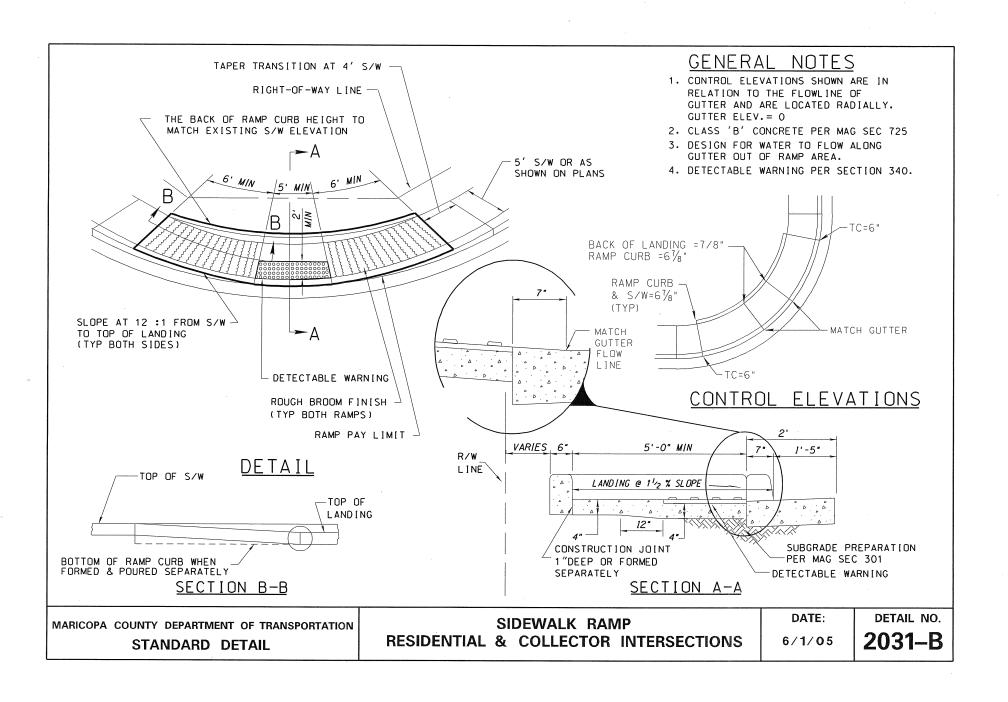
DATE

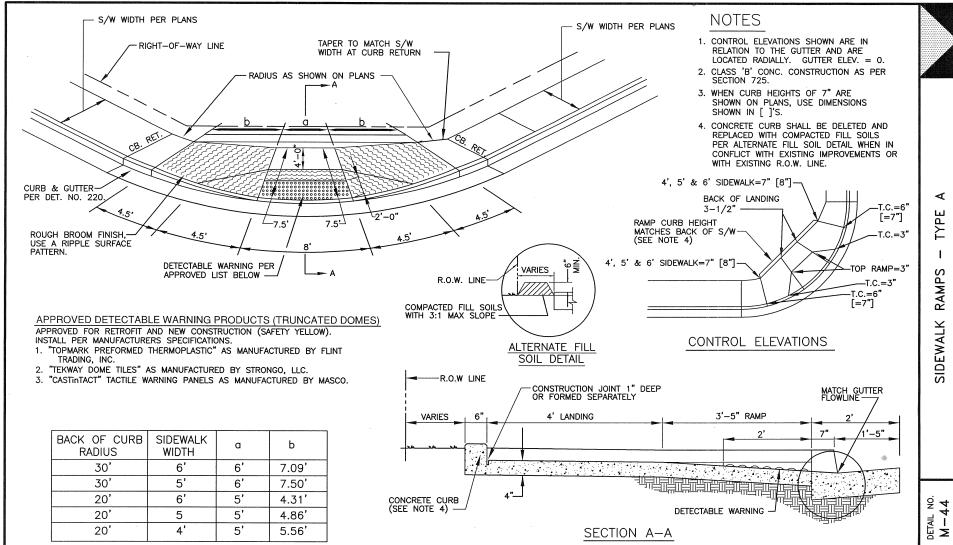
ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

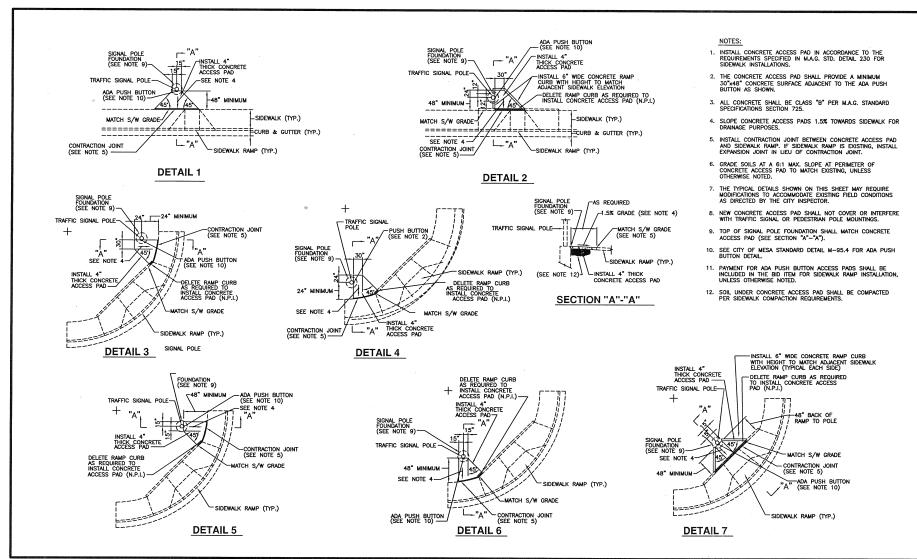
CITY ENGINEER

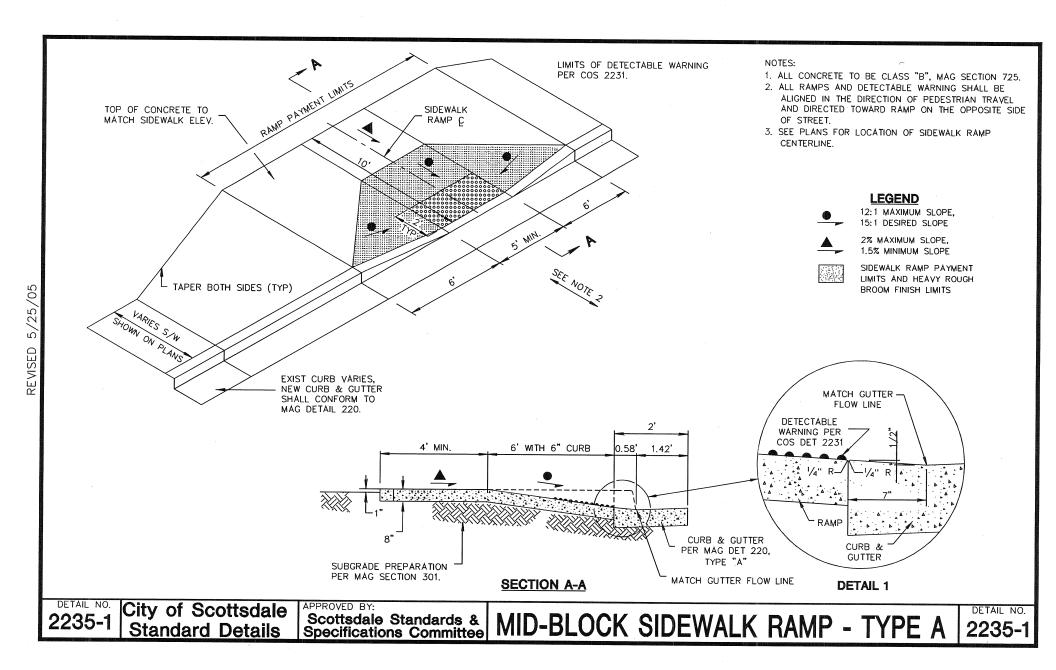


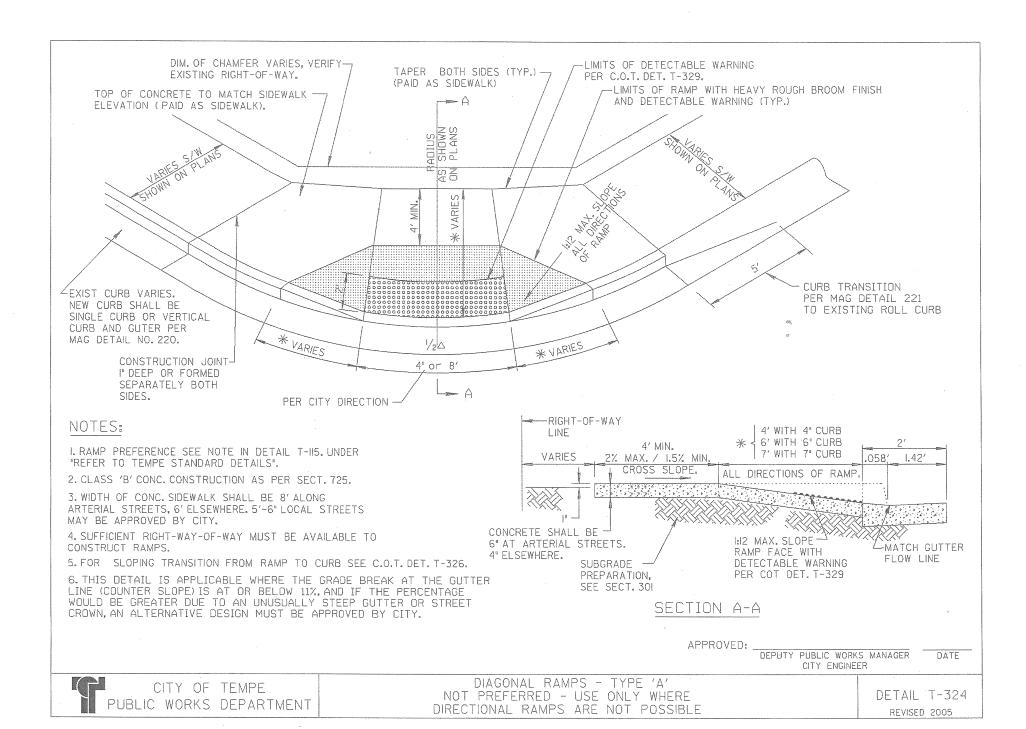


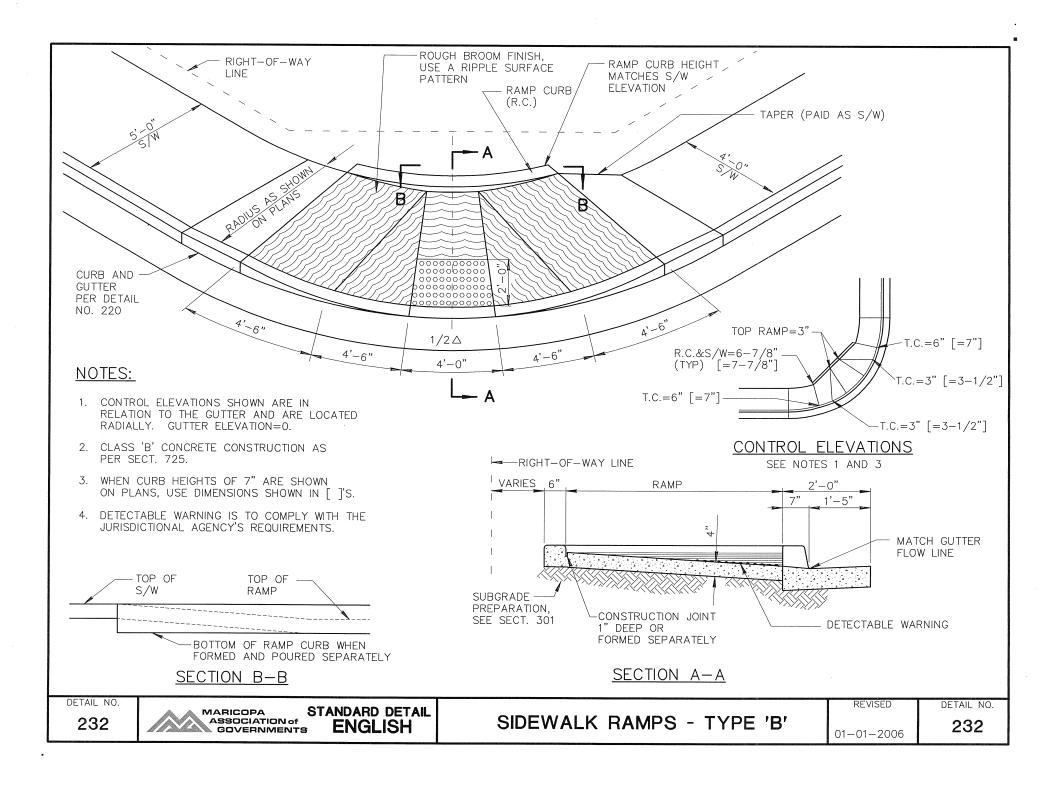


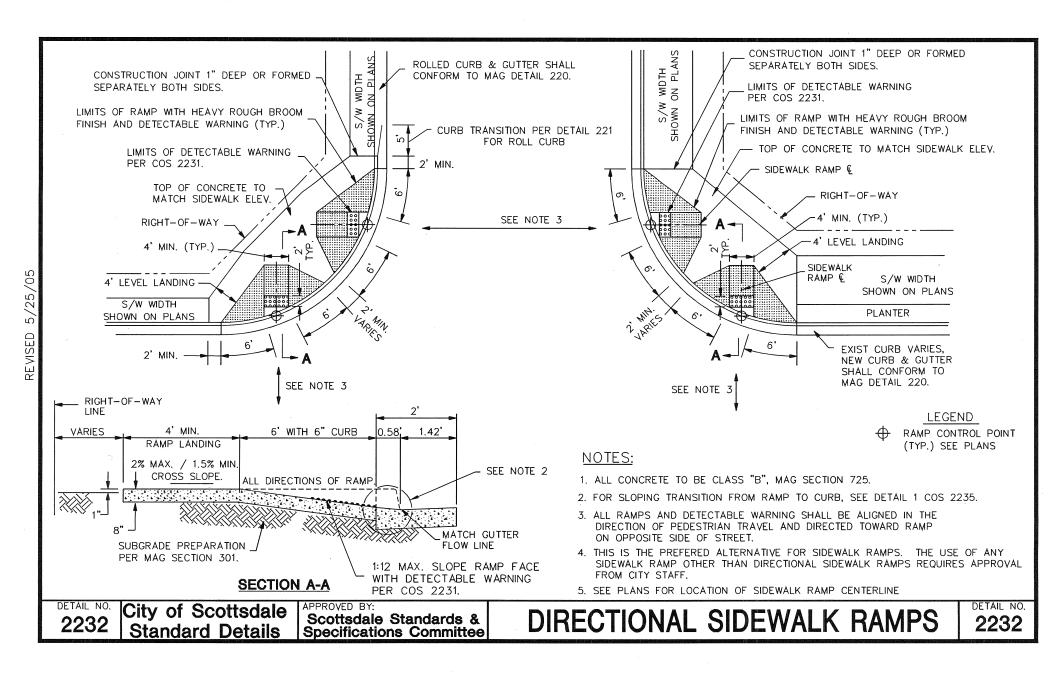


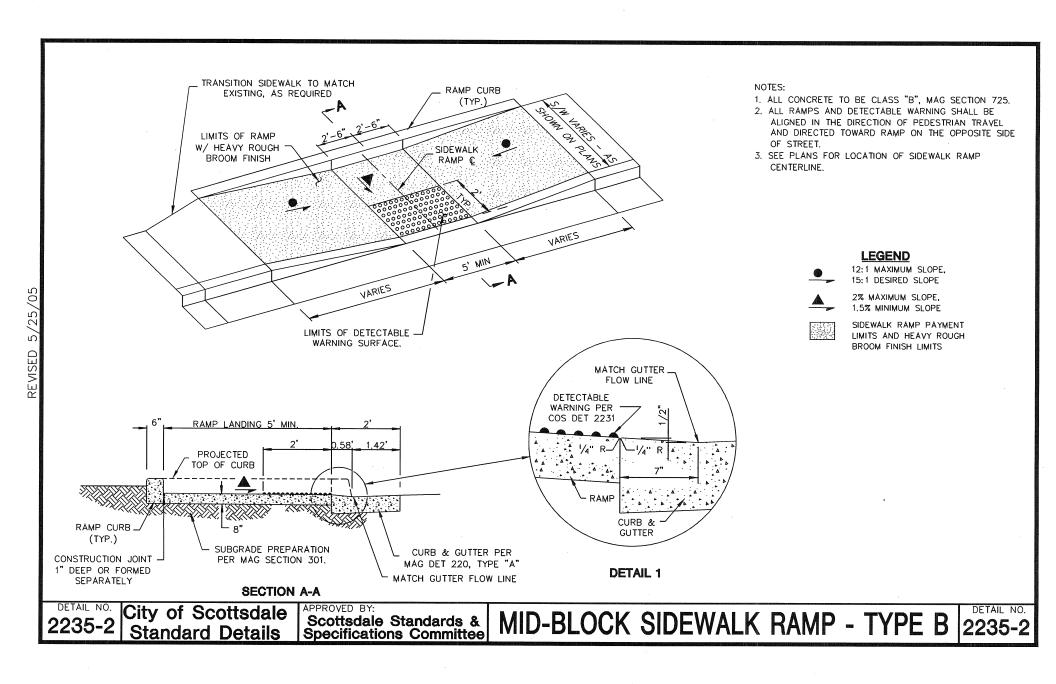


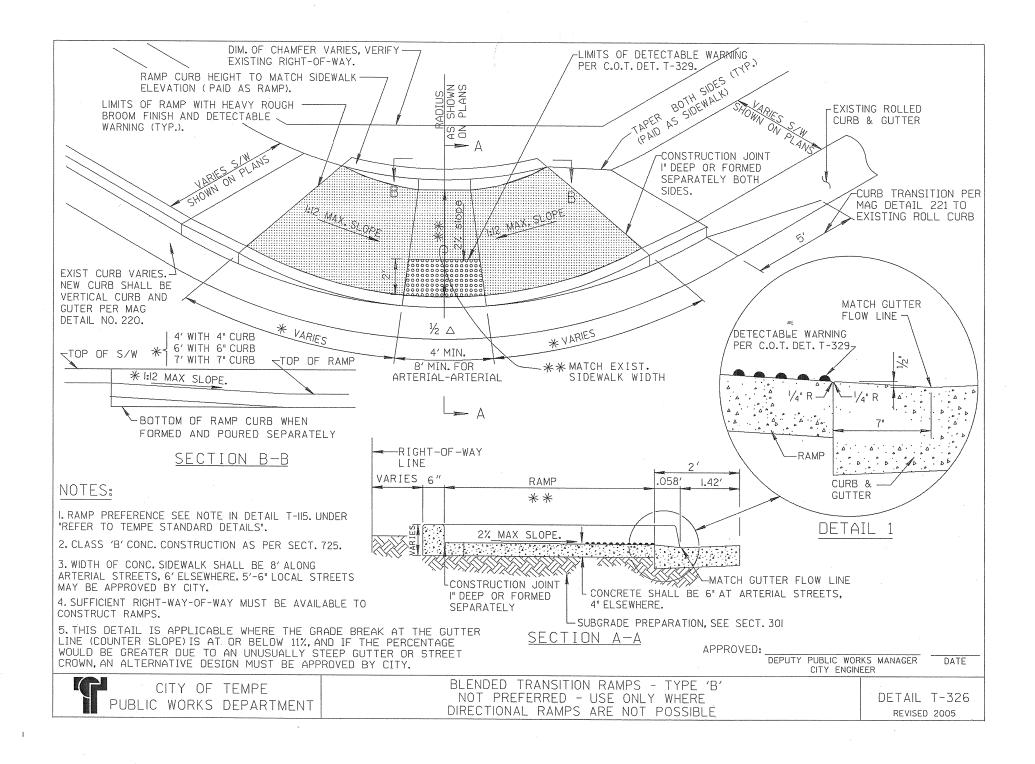


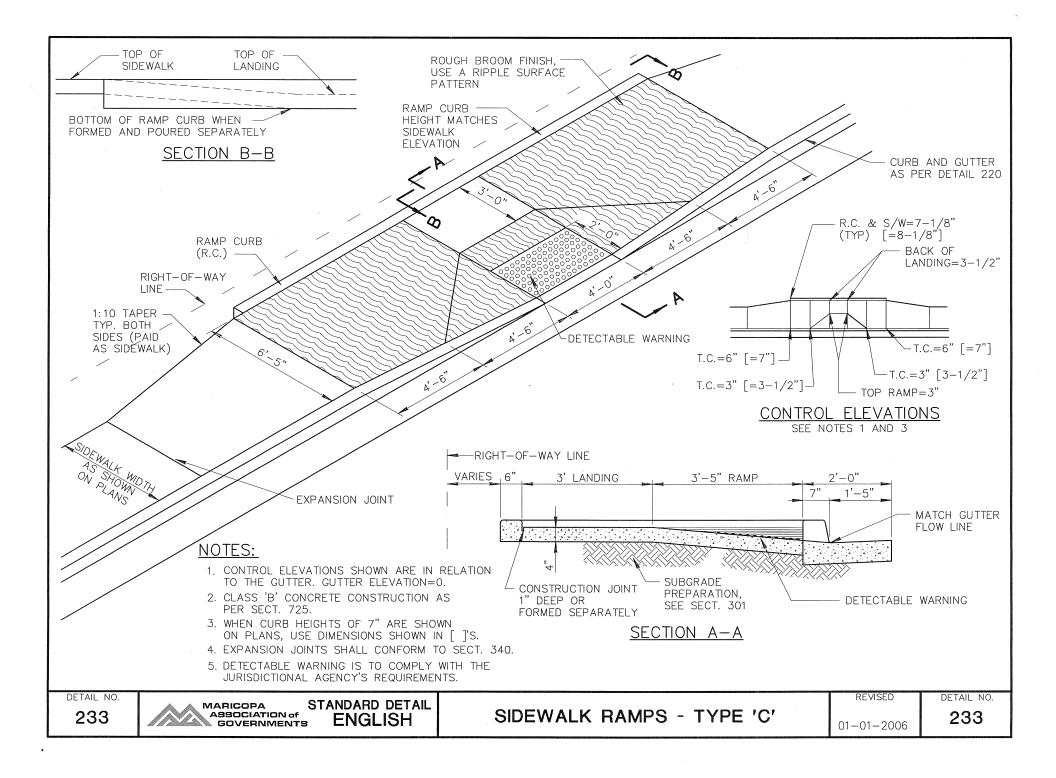


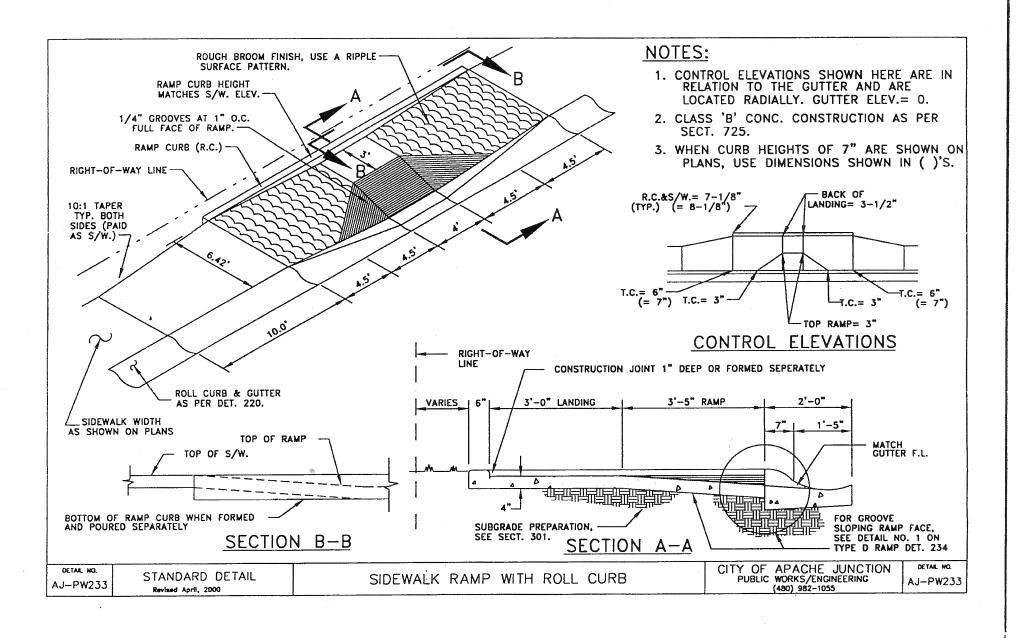


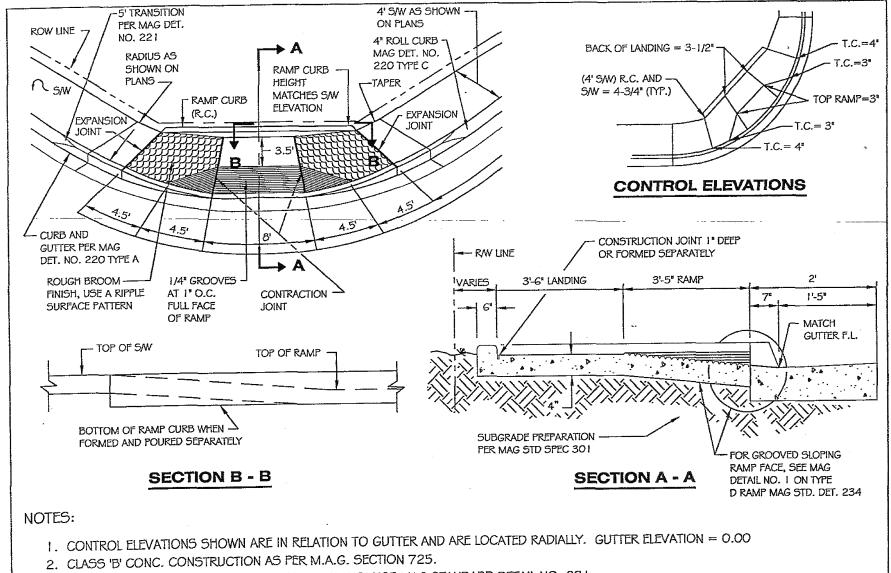












3. WHEN CURB HEIGHTS OF 6" ARE SHOWN ON PLANS, USE MAG STANDARD DETAIL NO. 231.

DETAIL NO.

C-244

NTS

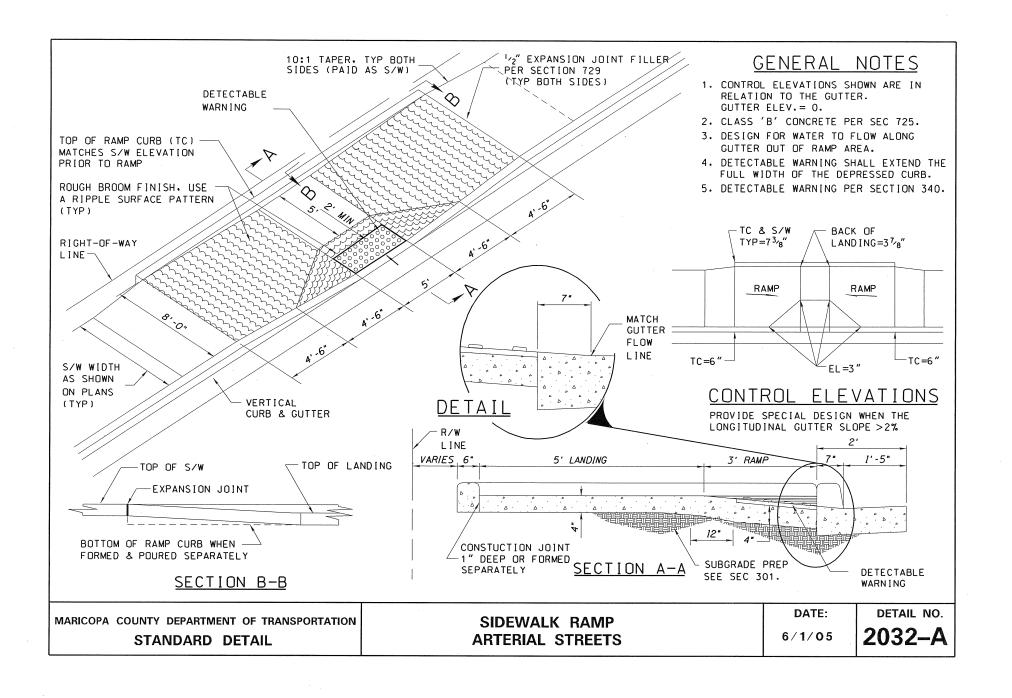


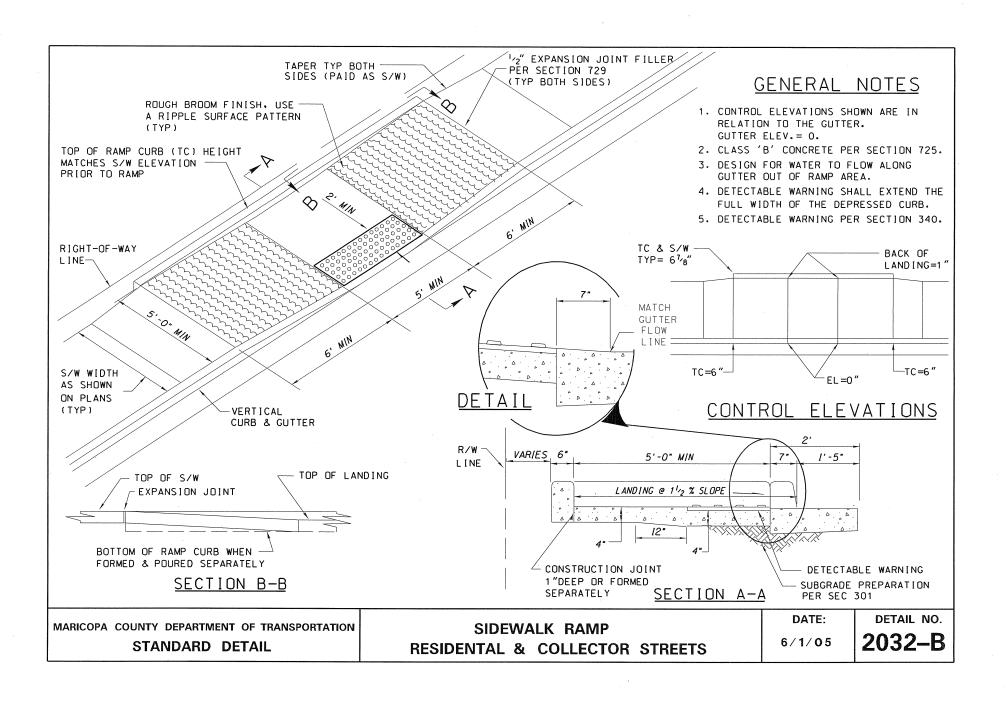
SIDEWALK RAMP AT
INTERSECTIONS FOR ROLL CURB

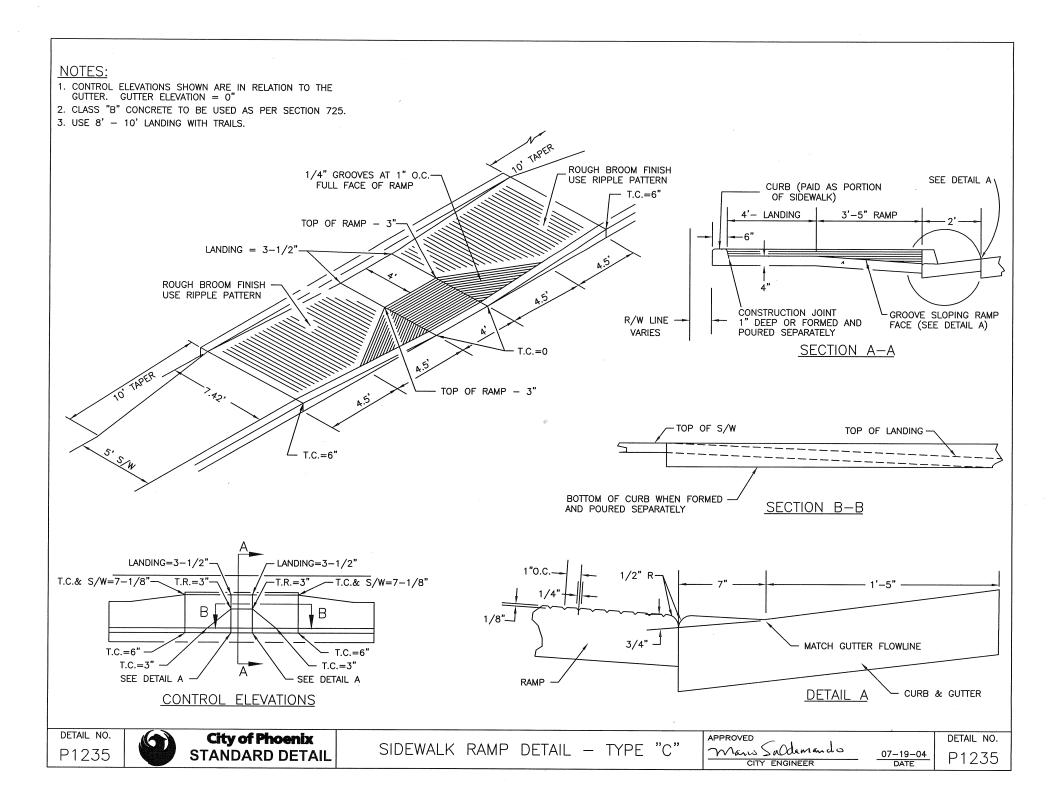
APPROVED: OTY ENGINEER
DATE: //- 19-99

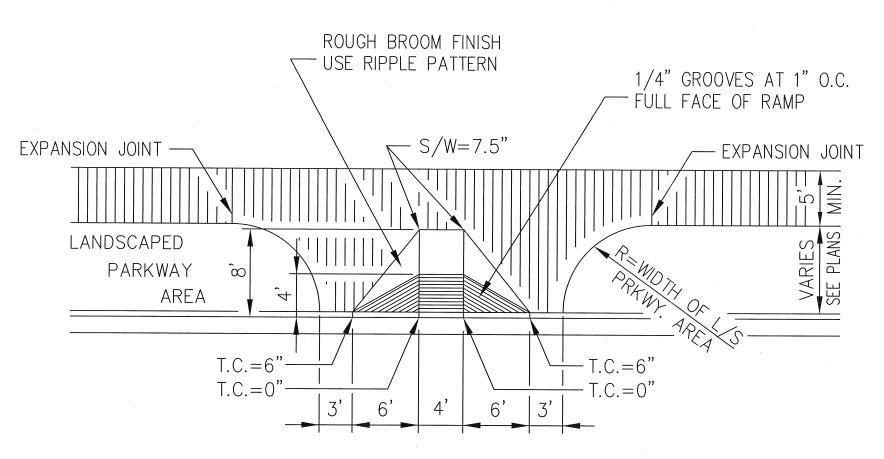
C-244

NTS









- 1) SEE DETAIL P1235, FOR CONSTRUCTION.
- 2) USE 8' 10' LANDING WITH TRAILS.

DETAIL NO.
P1235-1



City of Phoenix STANDARD DETAIL SIDEWALK RAMP DETAIL (TYPE C MODIFIED)
(DETACHED SIDEWALK)

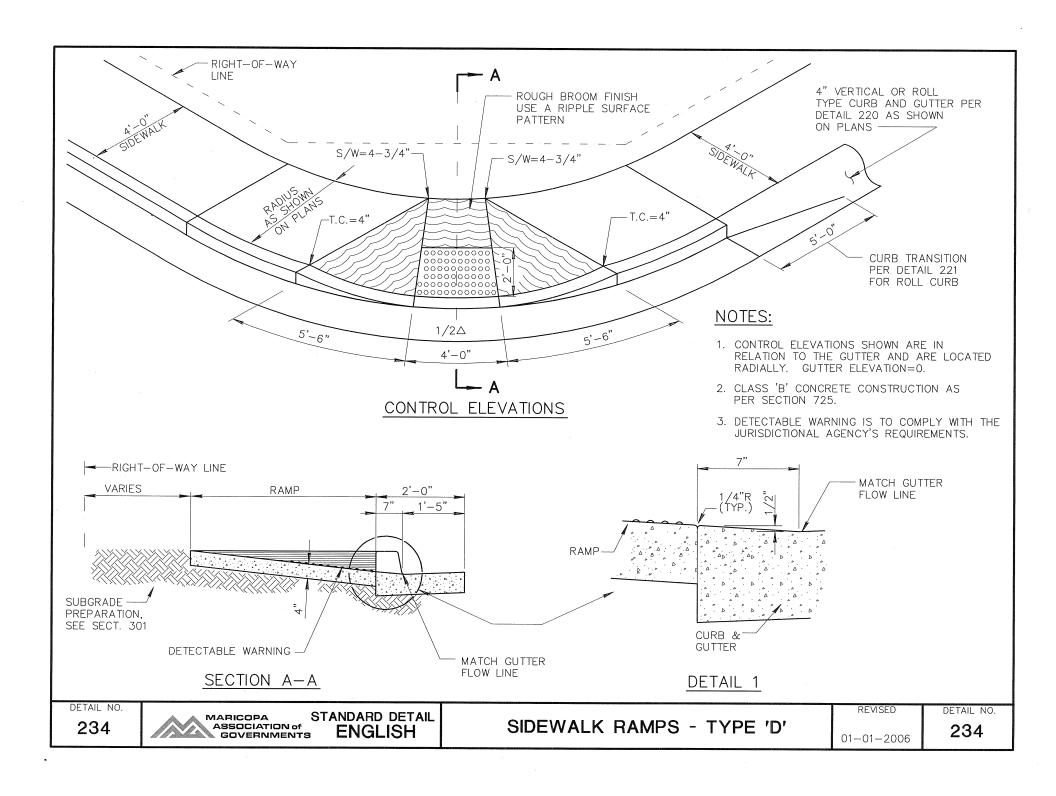
APPROVED

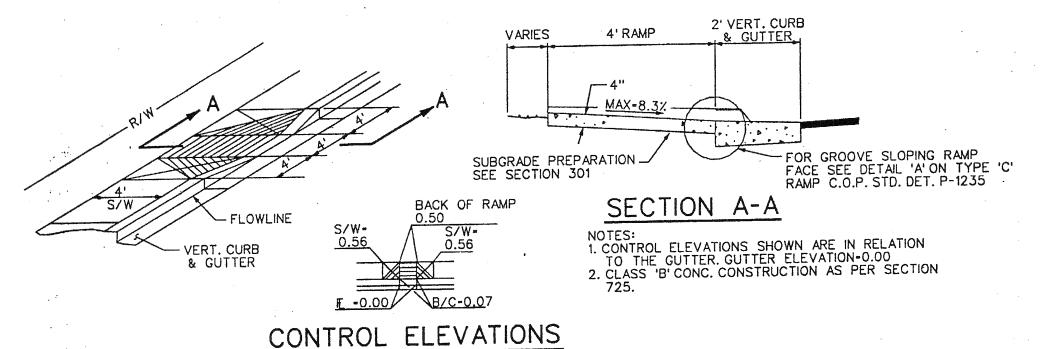
Mans Saddamando

CITY ENGINEER

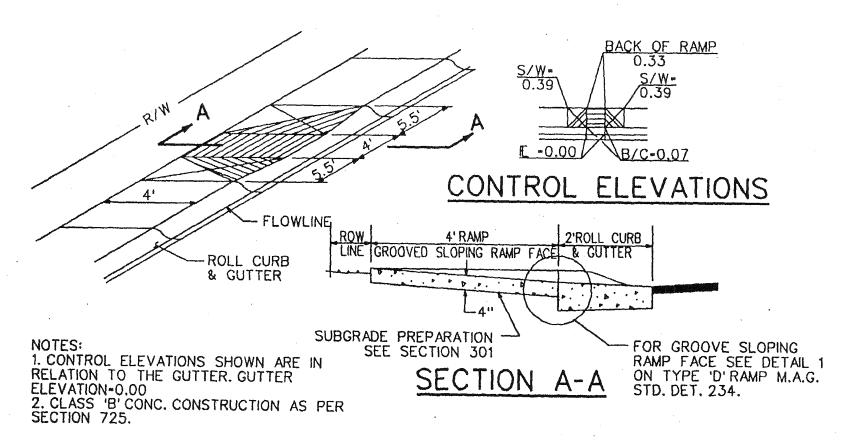
DETAIL NO.

08-08-03
DATE
P1235-

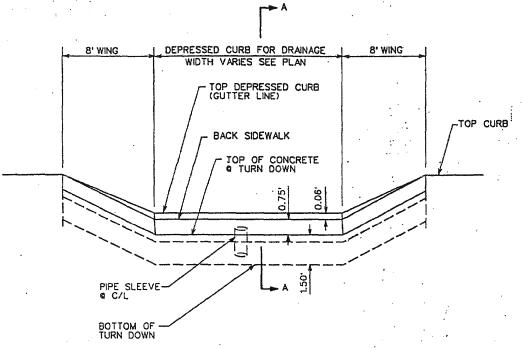




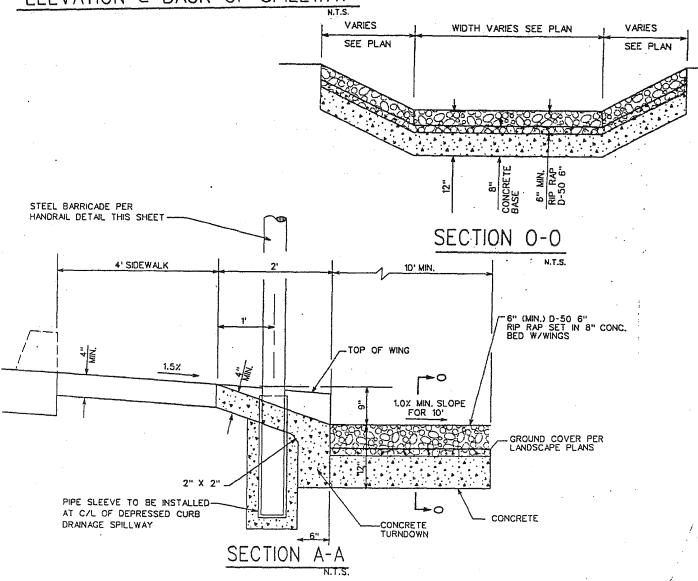
SIDEWALK RAMP DETAIL
VERTICAL CURB & GUTTER M.A.G. STD. DET. 234 MODIFIED



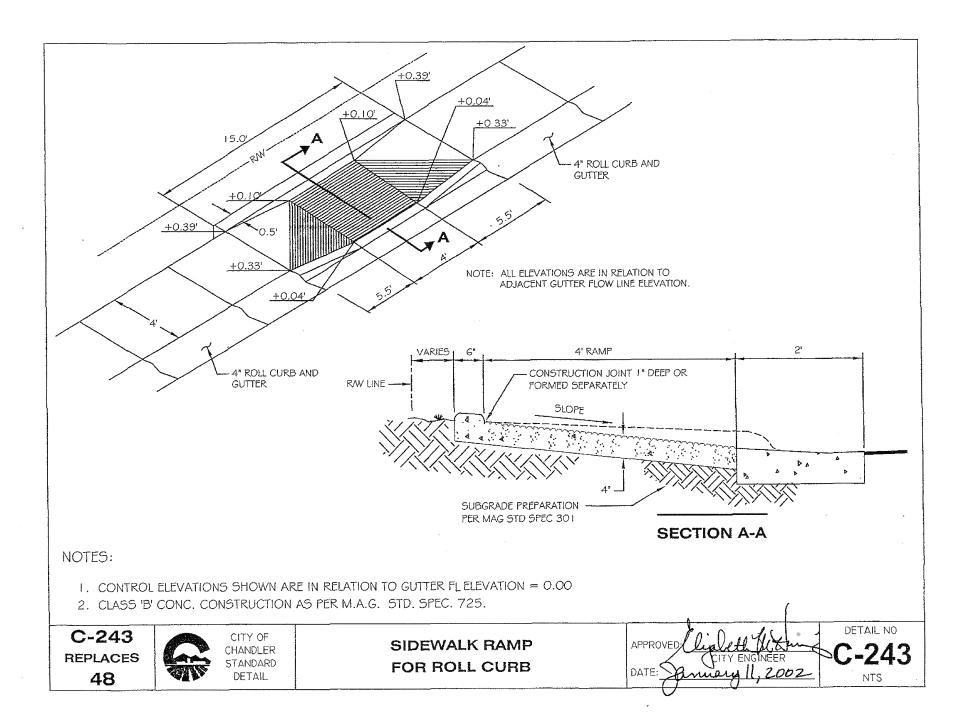
SIDEWALK RAMP DETAIL
ROLL CURB & GUTTER M.A.G. STD. DET. 234 MODIFIED

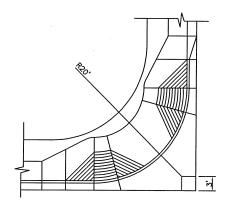


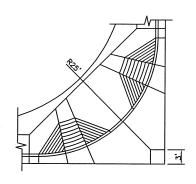
ELEVATION @ BACK OF SPILLWAY



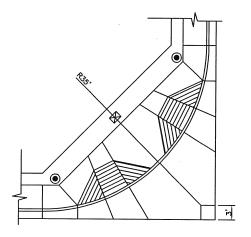
DEPRESSED S/W & CURB DETAIL

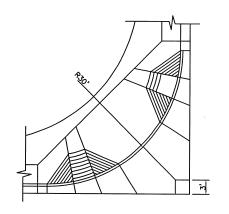




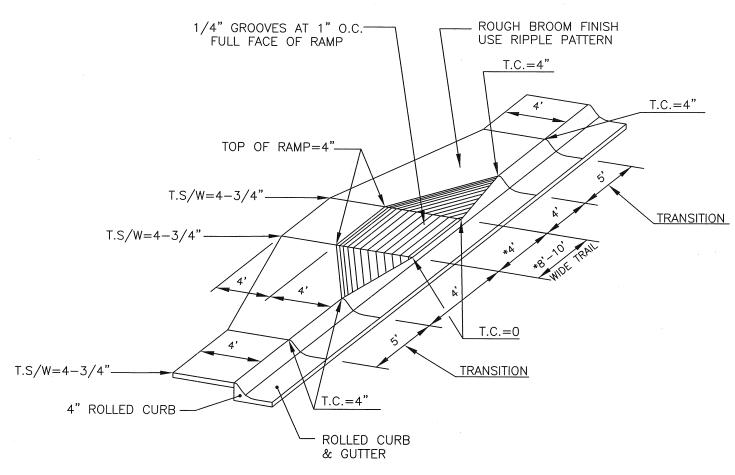


- 1. CONSTRUCT THE CONTRACTION JOINTS AS SHOWN ON CONCRETE APRON FOR THE RADIUS REQUIRED.
- 2. WHEN PLANS CALL FOR A CLASS "A" CONCRETE VALLEY GUTTER THE CONTRACTION JOINTS SHALL BE SPACED SYMMETRICAL WITH AT LEAST ONE JOINT EVERY 10 FEET.
- 3. WHEN PLANS CALL FOR A 7' VALLEY GUTTER, MAKE A 7' SQUARE INSTEAD OF A 3' SQUARE.



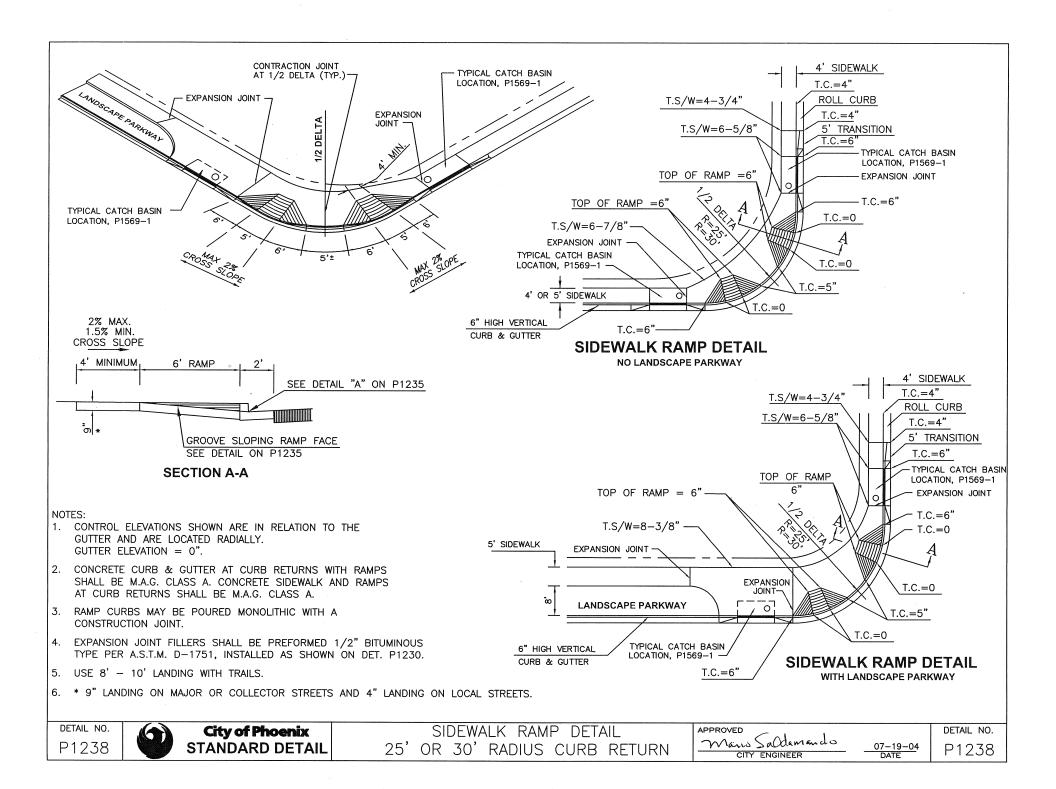


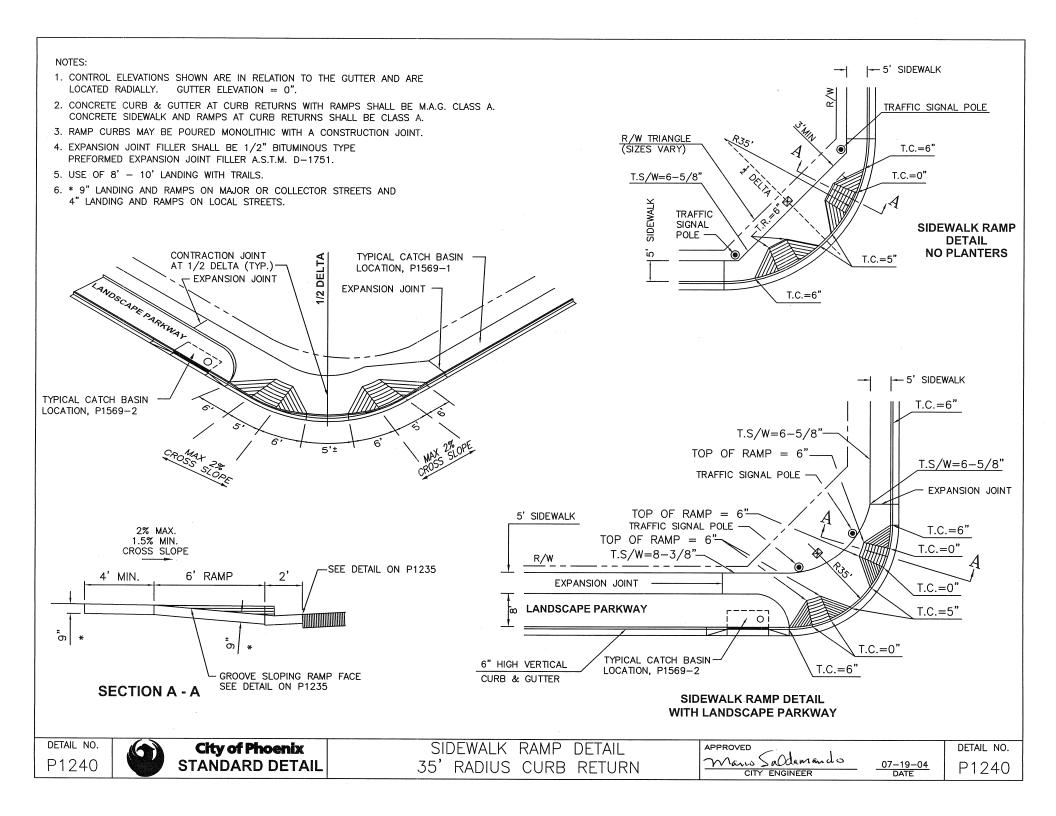


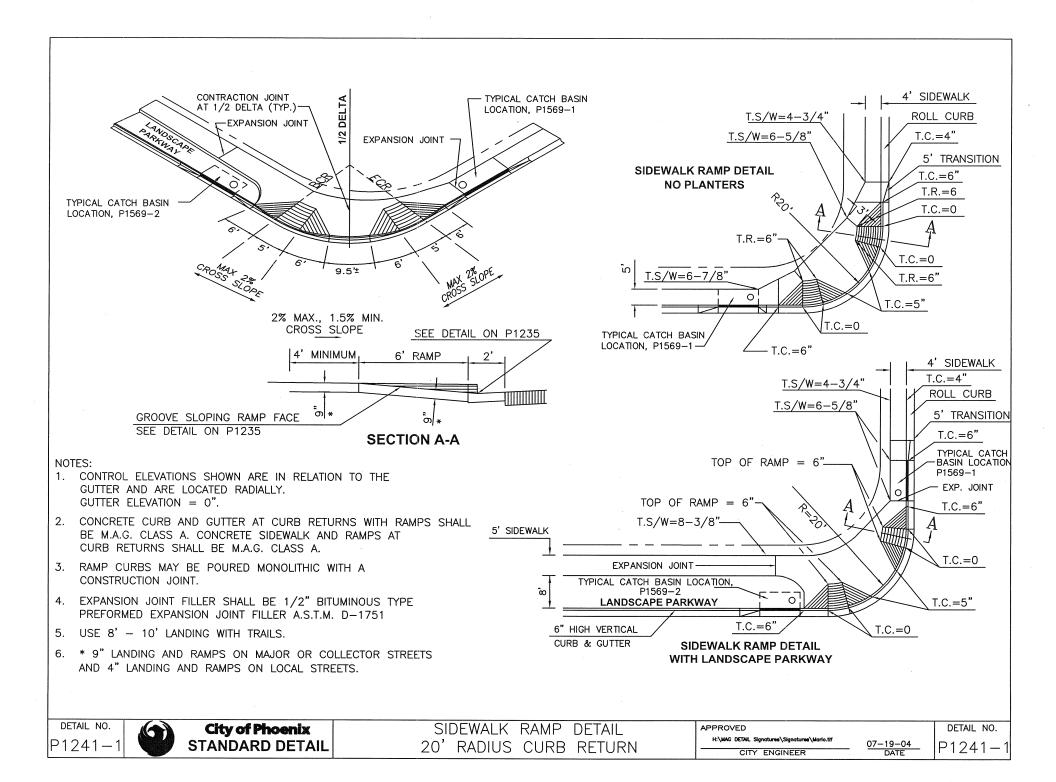


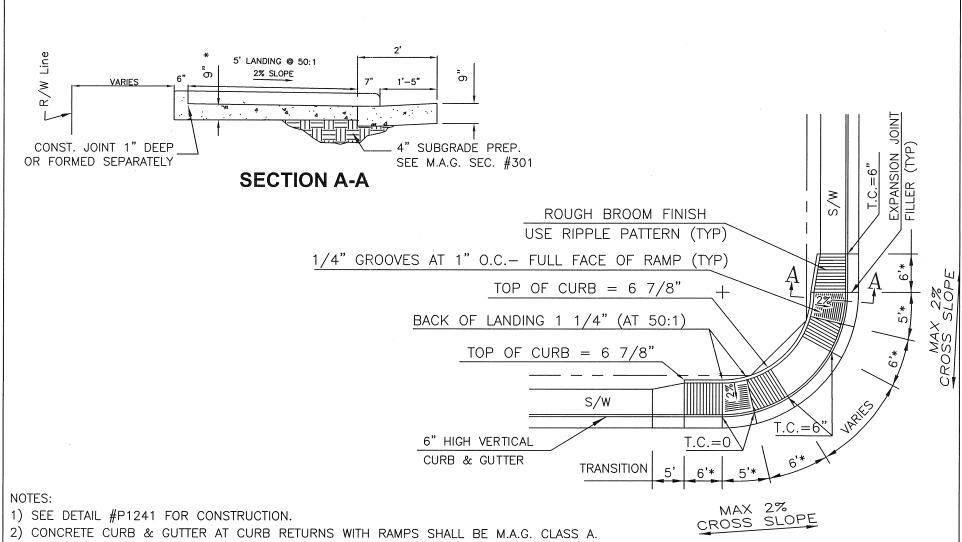
- 1) SEE DETAIL P1235
- 2) USE 8' 10' LANDING WITH USE ON TRAILS.











CONCRETE SIDEWALK AND RAMPS AT CURB RETURNS SHALL BE M.A.G. CLASS A.

2) * MINIMUM WIDTH

3) USE 8' - 10' WIDE LANDING WITH TRAILS.

4) * 9" LANDING AND RAMPS ON MAJOR OR COLLECTOR STREETS AND 4" LANDING AND RAMPS ON LOCAL STREETS.

SIDEWALK RAMP DETAIL

WITH LIMITED R/W

DETAIL NO.

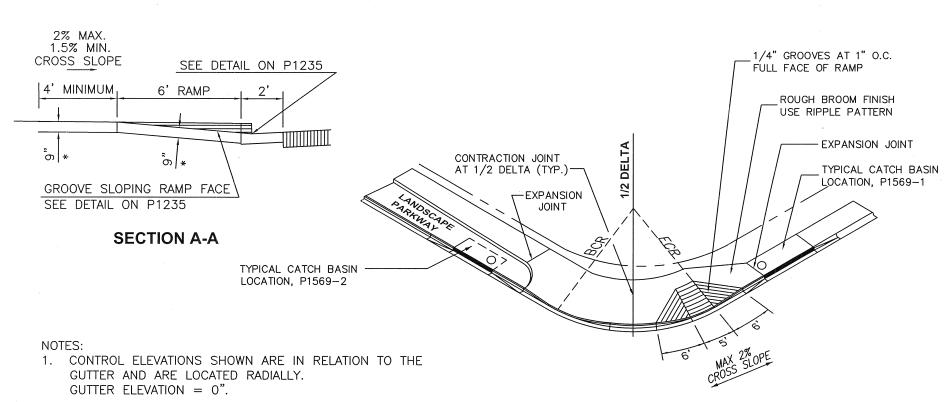


SIDEWALK RAMP DETAIL WITH LIMITED R/W

Mans Saddamando

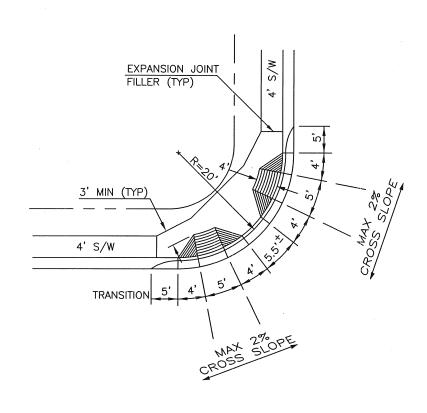
07-19-04

DETAIL NO. P1241-

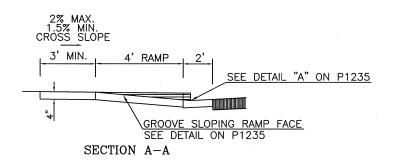


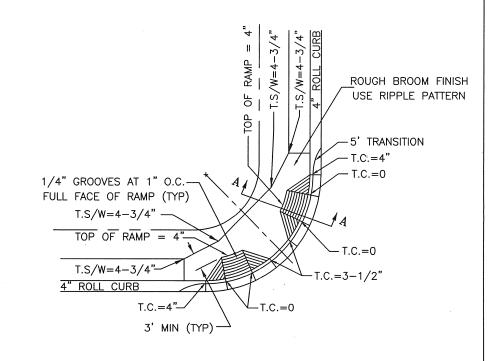
- 2. CONCRETE CURB & GUTTER AT CURB RETURNS WITH RAMPS SHALL BE M.A.G. CLASS A. CONCRETE SIDEWALK AND RAMPS AT CURB RETURNS SHALL BE M.A.G. CLASS A.
- 3. RAMP CURBS MAY BE POURED MONOLITHIC WITH A CONSTRUCTION JOINT.
- 4. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751
- 5. USE 8' 10' LANDING WITH TRAILS.
- 6. * 9" LANDING AND RAMPS ON MAJOR OR COLLECTOR STREETS AND 4" LANDING AND RAMPS ON LOCAL STREETS.



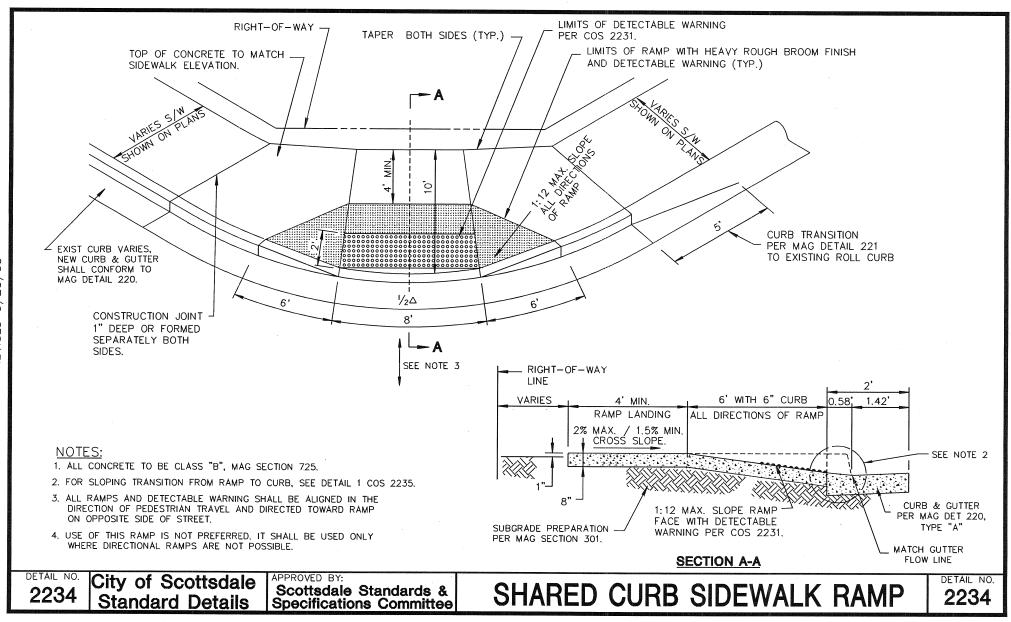


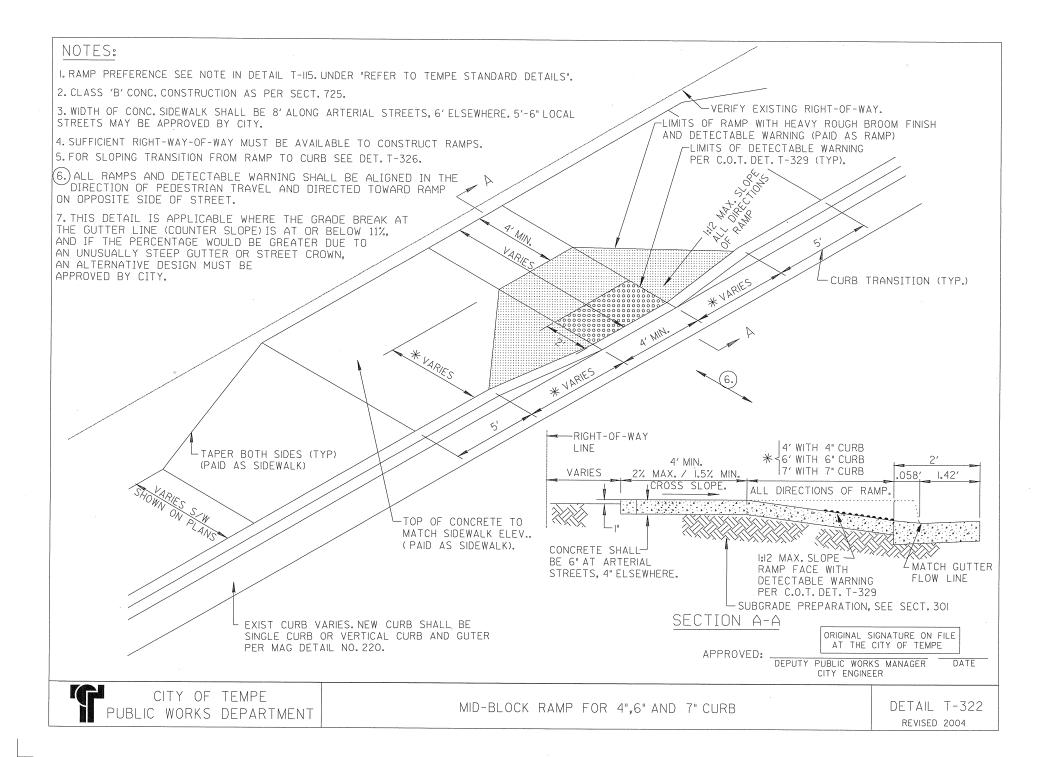
- CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION = 0".
- CONCRETE CURB & GUTTER AT CURB RETURNS WITH RAMPS SHALL BE M.A.G. CLASS A. CONCRETE SIDEWALK AND RAMPS AT CURB RETURNS SHALL BE M.A.G. CLASS A.
- RAMP CURBS MAY BE POURED MONOLITHIC WITH A CONSTRUCTION JOINT.
- 4. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751
- 5. USE 8' 10' LANDING WITH TRAILS.

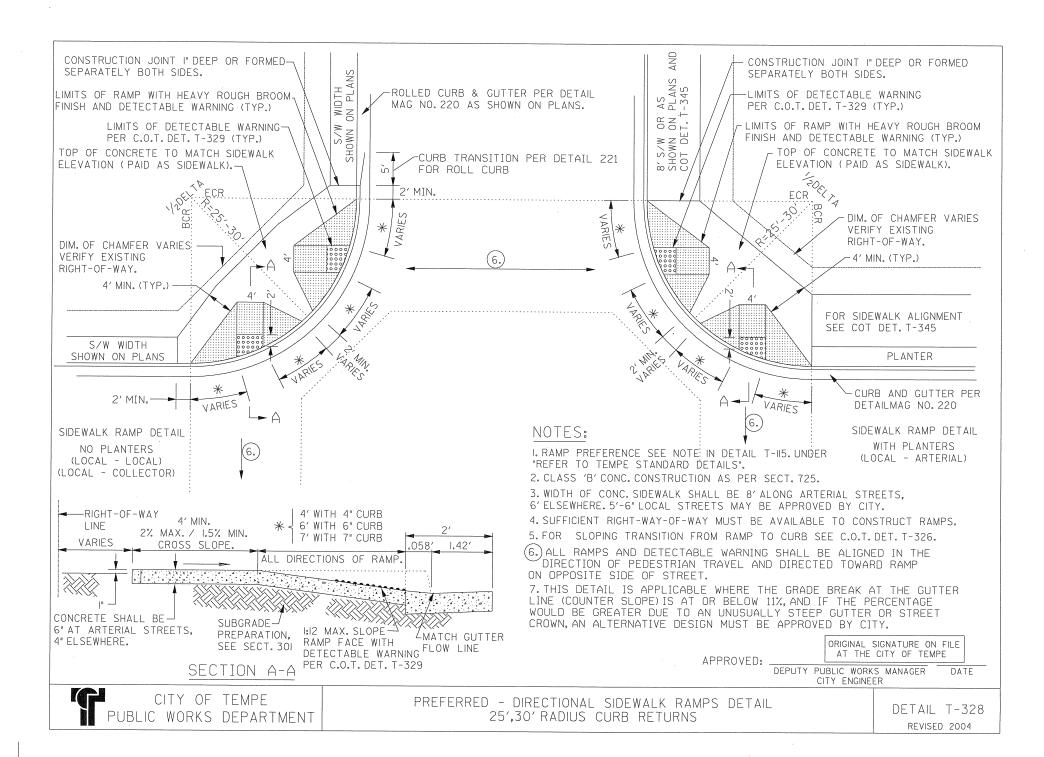


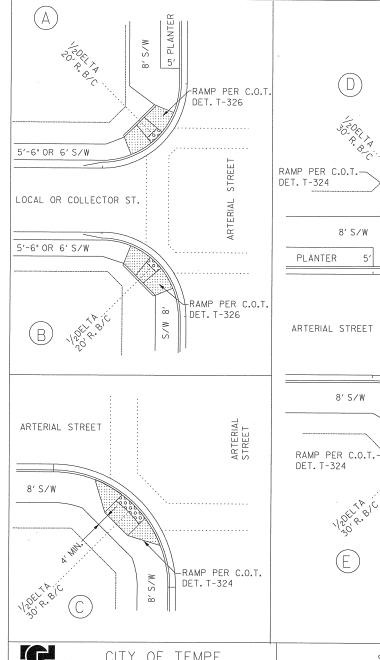


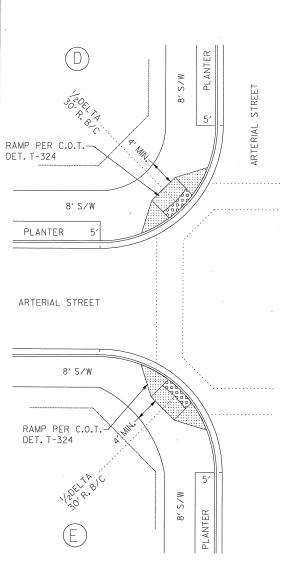












- I. RAMP PREFERENCE SEE NOTE IN DETAIL T-II5. UNDER "REFER TO TEMPE STANDARD DETAILS".
- 2. CLASS 'B' CONC. CONSTRUCTION AS PER SECT. 725.
- 3. WIDTH OF CONC. SIDEWALK SHALL BE 8' ALONG ARTERIAL STREETS, 6' ELSEWHERE. 5'-6" LOCAL STREETS MAY BE APPROVED BY CITY.
- 4. SUFFICIENT RIGHT-WAY-OF-WAY MUST BE AVAILABLE TO CONSTRUCT RAMPS.
- 5. THESE DETAILS OF RAMPS ARE APPLICABLE WHERE THE GRADE BREAK AT THE GUTTER LINE (COUNTER SLOPE) IS AT OR BELOW 11%, AND IF THE PERCENTAGE WOULD BE GREATER DUE TO AN UNUSUALLY STEEP GUTTER OR STREET CROWN, AN ALTERNATIVE DESIGN MUST BE APPROVED BY CITY.
- 6. EXISTING CONDITIONS MAY REQUIRE MODIFICATION OF THE ABOVE ALTERNATES WITH APPROVAL OF THE CITY ENGINEER.
- 7. SEE STD. DETAIL T-345 FOR TYPICAL ALIGNMENT OF SIDEWALK APPROACHING INTERSECTION.
- 8. RAD. TO BACK OF CURB SHOWN ABOVE ARE TYPICAL BUT MAY VARY WHERE CURB RETURN EXISTS.
- 9. CENTER RAMP ON MID-RETURN UNLESS APPROVED OTHERWISE BY THE TRAFFIC ENGINEER.
- IO. ADDITIONAL S/W MAY BE REQUIRED TO PROVIDE FULL WIDTH S/W WHERE TRAFFIC FURNITURE OCCUPIES NORMAL S/W.
- II. FOR TRAFFIC FURNITURE FOUNDATIONS SEE TRAFFIC SIGNAL FOUNDATIONS DETAILS.
- 12. 4' MIN. WIDTH OF CONCRETE AT BACK OF RAMP WITH 2% MAX. / 1.5 MIN. CROSS SLOPE.
- I3. FOR DETECTABLE WARNING SEE C.O.T. DET. T-329, SLOPING TRANSITION FROM RAMP TO CURB SEE C.O.T. DET. T-326.
- 14. CONCRETE OF RAMPS SHALL BE 6" AT ARTERIAL STREETS, 4" ELSEWHERE.

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

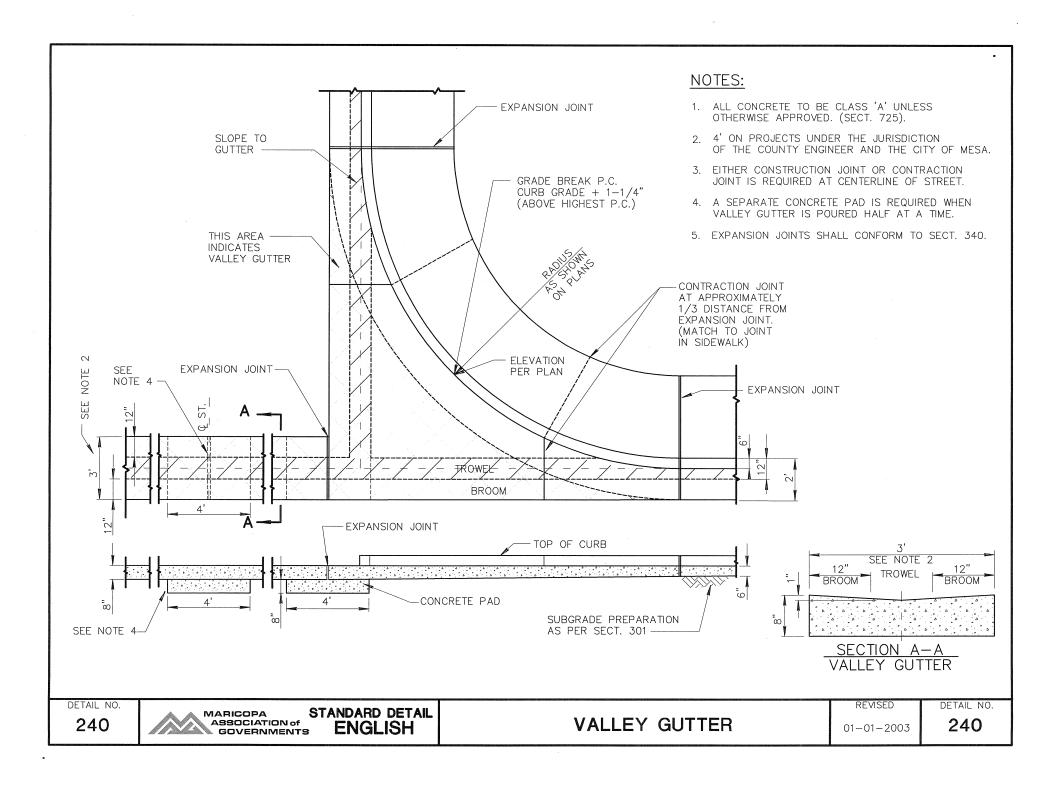
DEPUTY PUBLIC WORKS MANAGER
CITY ENGINEER

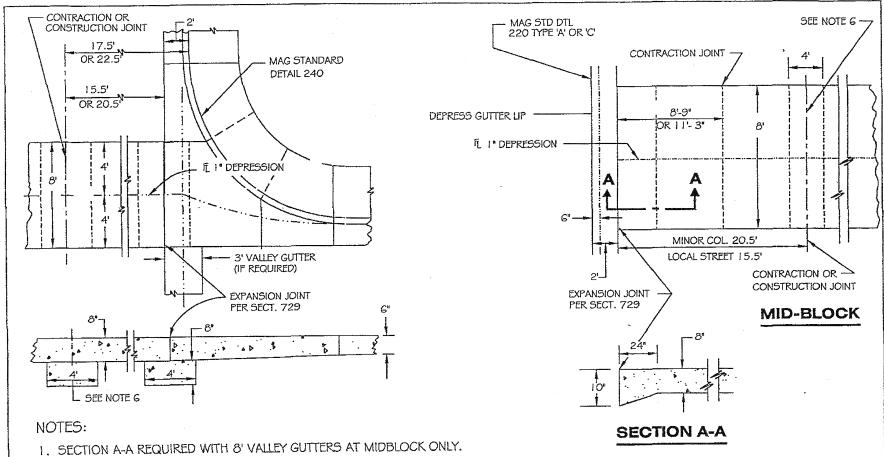
DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

SIDEWALK AND RAMP AT STREET INTERSECTIONS WHERE DIRECTIONAL RAMPS ARE NOT POSSIBLE

DETAIL T-349
REVISED 2004





- 2. 8' VALLEY GUTTER IN MIDBLOCK USES SAME JOINTING AS AT INTERSECTION.
- 3. 8' MIDBLOCK VALLEY GUTTER IS TO BE USED ON LOCAL AND MINOR COLLECTOR STREETS ONLY.
- 4. ALL CONCRETE TO BE CLASS 'B' UNLESS OTHERWISE APPROVED. (SECT. 725)
- 5. EITHER CONSTRUCTION JOINT OR CONTRACTION JOINT IS REQUIRED AT CENTER LINE OF STREET.
- 6. A SEPARATE CONCRETE PAD IS REQUIRED WHEN VALLEY GUTTER IS POURED HALF AT A TIME.
- 7. 8' VALLEY GUTTER IS TO BE USED AT ALL COLLECTOR STREET INTERSECTIONS WITH ARTERIAL STREETS WHERE VALLEY GUTTERS ARE REQUIRED OR AS DIRECTED BY THE CITY ENGINEER.

C-233 REPLACES 42



CHANDLER STANDARD

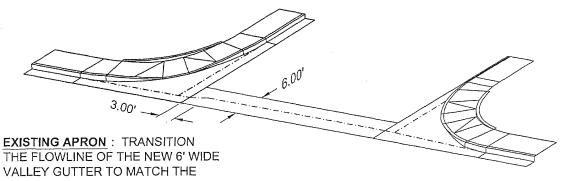
VALLEY GUTTER

STANDARD DETAIL G-340

CITY OF GLENDALE **ENGINEERING**



6' WIDE VALLEY GUTTER

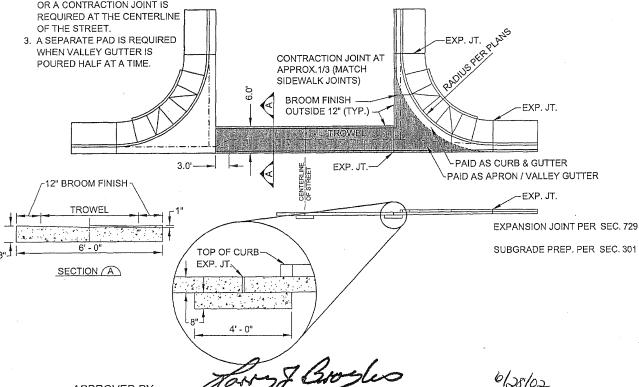


THE FLOWLINE OF THE NEW 6' WIDE VALLEY GUTTER TO MATCH THE **EXISTING APRON FLOWLINE IN 3'**

NEW APRON: THE FLOWLINE OF THE NEW APRON IS TO MATCH THE FLOWLINE OF THE 6' WIDE VALLEY GUTTER.

NOTE:

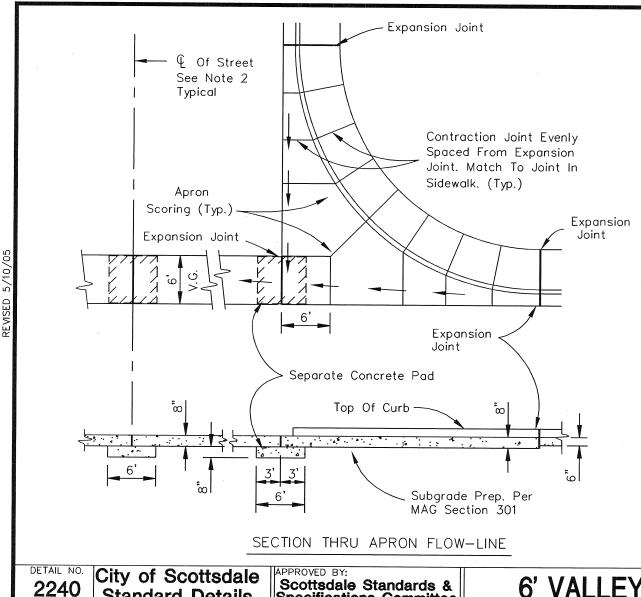
- 1. ALL CONCRETE TO BE CLASS "A" UNLESS OTHERWISE APPROVED (SECTION 725)
- 2. EITHER A CONSTRUCTION JOINT OR A CONTRACTION JOINT IS REQUIRED AT THE CENTERLINE OF THE STREET.



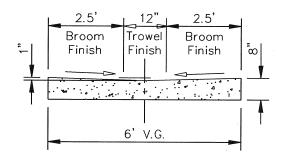
APPROVED BY:

CITY ENGINEER

REVISED: JUNE 2002



- 1. All Concrete To Be Class "A", MAG Section 725.
- 2. Use A Construction Joint Or Contraction Joint At The © Of Street, A Separate Concrete Pad Is Required With A Construction Joint.
- 3. ½" Expansion Joint, ASTM D-1751 Per MAG Section 729.
- 4. Return Curb and Sidewalk to be Monolithically Poured.

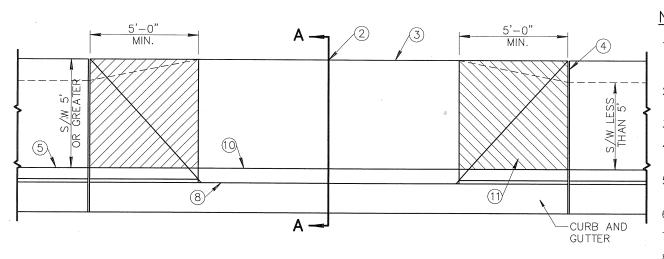


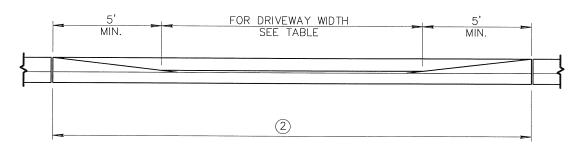
SECTION THRU VALLEY GUTTER

City of Scottsdale Standard Details

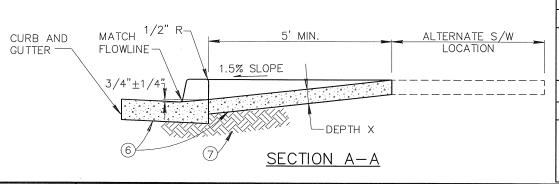
APPROVED BY:
Scottsdale Standards &
Specifications Committee

6' VALLEY GUTTER & APRON





- 1. DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.
- 2. WHEN WIDTH EXCEEDS 22' PROVIDE A CONTRACTION JOINT ON D/W CENTERLINE.
- 3. BACK OF D/W OR FACE OF FUTURE S/W.
- 4. EXPANSION JOINTS SHALL COMPLY WITH SECTION 340.
- 5. BACK OF CURB CONSTRUCTION JOINT OR SCORE MARK.
- 6. CLASS 'B' CONCRETE, SECT. 725.
- 7. SUBGRADE PREPARATION, SECT. 301.
- 8. FLOW LINE OF GUTTER.
- 9. DEPRESSED CURB.
- SECT. A—A AND ELEVATION, D/W VERTICAL CURB AND GUTTER OR ROLL TYPE CURB AND GUTTER.
- 11. ROUGH BROOM FINISH FULL WIDTH OF 5' WARP SECTION, EACH SIDE OF DRIVEWAY.



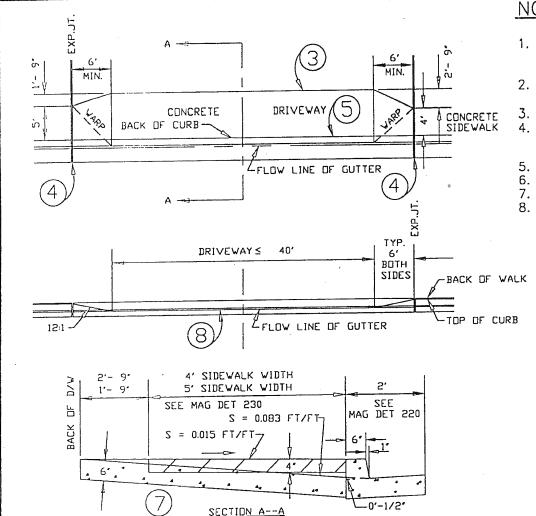
COMMERCIAL AND INDUSTRIAL					
DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH X	
COMMERCIAL	* 16'	40'	В	6"	
INDUSTRIAL	* 16'	40'	В	6"	
*24' MIN. FOR TWO WAY TRAFFIC					
RESIDENTIAL					
DRIVEWAY WIDTH MIN. MAX. CLASS DEPTH					
MAJOR STREET	16'	30'	В	5"	
COLLECTOR STREET	* 12'	30'	В	5"	
LOCAL STREET	12'	30'	В	5"	
*16' DESIRABLE					

DETAIL NO. **250**

MARICOPA STANDARD DETAIL
ASSOCIATION of ENGLISH
GOVERNMENTS

DRIVEWAY ENTRANCES

REVISED 01-01-2006



- 1. DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.
- WHEN WIDTH EXCEEDS 22' PROVIDE A CONTRACTION JOINT ON D/W CENTERLINE.
- BACK OF D/W.
 - MASTIC EXPANSION JOINT THROUGH CURB & GUTTER.

 EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE
 PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751.
- . BACK OF CURB CONSTRUCTION JOINT OF SCORE MARK.
- 6. CLASS 'B' CONCRETE, SECT. 725.
- 7. SUBGRADE PREPARATION, SECT. 301.
- B. FLOW LINE OF GUTTER.

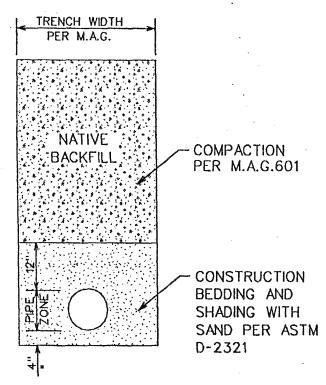
COMMERCIAL &	IND	JST	RIAL	
DRIVEWAY WIDTH	MIN.	MAX.	CL.	DEPTH
COMMERCIAL INDUSTRIAL	*16' *16'	40' 40'	B B	6" 6"
*24'MIN. FOR 2-WAY TRAFFIC				
RESIDENTIAL				
DRIVEWAY WIDTH	MIN.	MAX.	CL.	DEPTH
MAJOR STREET COLLECTOR STREET LOCAL STREET *16' DESIRABLE	16' *12' 12'	30' 30' 30'	B B B	5" 5" 5"

DETAIL NO. 250M—AJ STANDARD DETAIL
Revised September, 1999

DRIVEWAY ENTRANCES

CITY OF APACHE JUNCTION PUBLIC WORKS/ENGINEERING (480) 982-1055

DETAIL NO. 250M—AJ

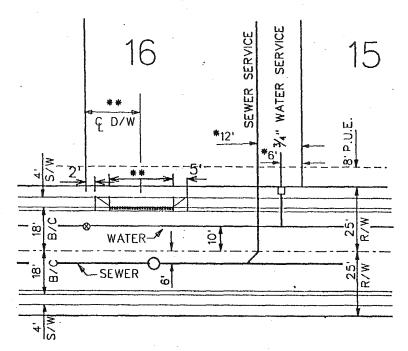


TRENCH DETAIL

N.T.S

. PIPE 15' DEEP REQUIRES 12" SAND BEDDING.

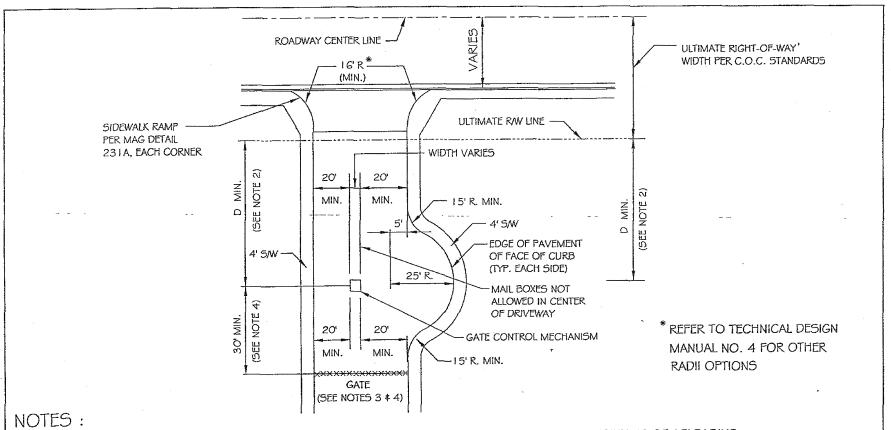
For new subdivisions only.



TYPICAL DRIVEWAY & WATER & SEWER SERVICE LOCATIONS

N.T.S.

INSTALL 4" SEWER SERVICE PER M.A.G. STD. DET. 440
INSTALL 3/4" WATER SERVICE
(**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON PLANS)



- 1. DRIVEWAY MAX. WIDTH = 45 FEET IN STREET R.W.
- 2. SETBACK REQUIREMENT BY NUMBER OF RESIDENTIAL UNITS:

NUMBER OF UNITS	D MIN.
LESS THAN 100	40'
101 TO 150	6O'
151 TO 200	80'
GREATER THAN 200	100,
	•

- 3. GATE INSTALLED AT BEGINNING OF 15' RADIUS.
- 4. 30' MIN. DIMENSION FROM CENTERLINE OF GATE CONTROL MECHANISM TO FACE OF GATE.
- 5. WHERE MORE THAN ONE ENTRY IS PROVIDED, D MIN. MAY BE REDUCED WITH APPROVAL OF CITY ENGINEER.
- G. ELECTRICAL CONTROLLED GATES SHALL BE EQUIPPED WITH AN AUTOMATIC OPENING PRE-EMPTION DEVICE, TIMED TO REMAIN OPEN FOR 30 MINUTES, AND A KNOX KEY SWITCH OVERRIDE LOCATED AT THE GATE CONTROL MECHANISM.

C-228

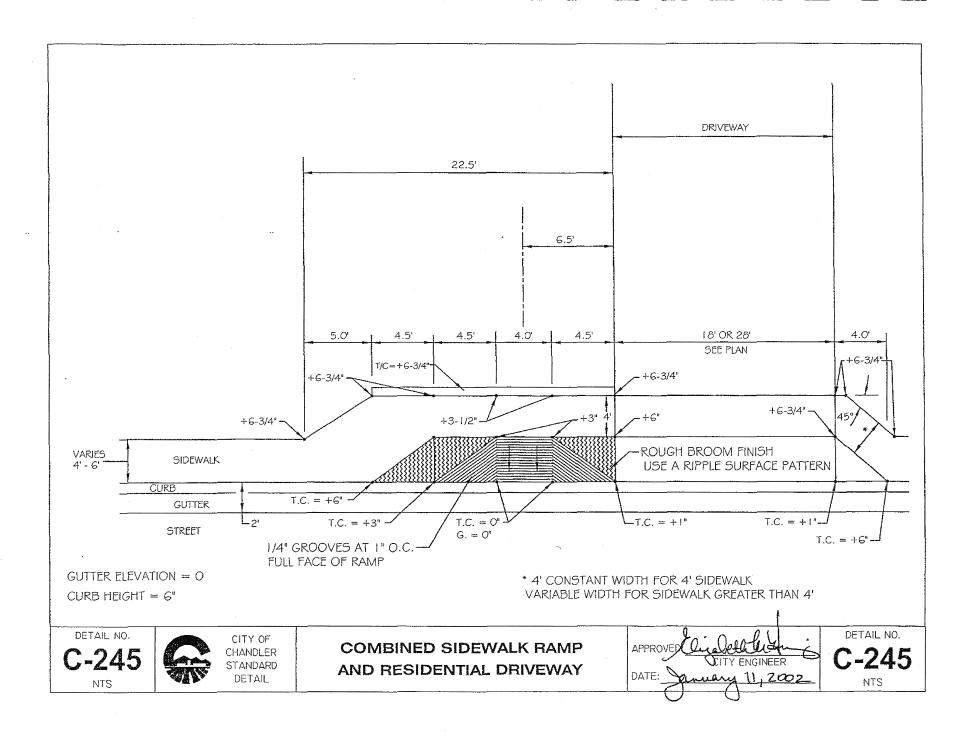


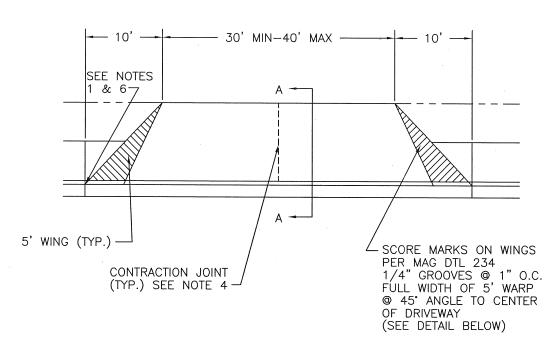
TYPICAL DRIVEWAY ACCESS TO PRIVATE GATED COMMUNITY

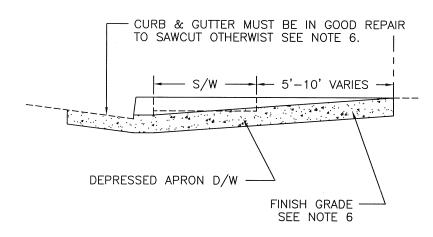
APPROVED: Par ENGINEER
DATE: 119-99

C-228

NTS







SECTION A-A

NOTES:

- 1. EXPANSION JOINTS TO BE CONSTRUCTED AT EACH SIDE OF DRIVEWAY DEPRESSION AT POINTS OF CURVATURE AND AT ALL RIGID STRUCTURES.
- 2. ALL CONCRETE SHALL BE CLASS A AS PER SECTION 725.
- 3. ALL COMMERCIAL DRIVEWAYS AND ALLEY ENTRANCES ARE TO BE 8' THICK.
- 4. WHEN A DRIVEWAY WIDTH EXCEEDS 14', PROVIDE A CONTRACTION JOINT AT DRIVEWAY CENTERLINE.
- 5. FINISH GRADE ELEVATION AT THE BACK EDGE OF DRIVEWAY SHALL EQUAL THE TOP OF CURB ELEVATION, PLUS 0.015 TIMES THE DISTANCE FROM BACK OF CURB TO BACK OF DRIVEWAY, UNLESS OTHERWISE DETAILED ON THE PLANS AND APPROVED BY THE TOWN. TRANSITION FROM THE BACK EDGE OF DRIVEWAY TO THE EXISTING OR PROPOSED SURFACE SHALL BE AS NOTED ON THE PLANS.
- 6. WHEN INSTALLING A DRIVEWAY IN EXISTING SIDEWALK AND/OR CURB, THE FOLLOWING NOTES APPLY:
- A. REMOVE CURB ONLY WHEN CONSTRUCTING NEW DEPRESSION IN EXISTING CURB. DAMAGED GUTTER SHALL BE REMOVED WHERE INDICATED AS DIRECTED BY ENGINEER. SEE SECTIONS AT RIGHT.
- B. SIDEWALK MUST BE SAWCUT TO FULL DEPTH OR REMOVED TO NEXT EXPANSION JOINT.
- C. ENTIRE EXISTING CURB AND GUTTER SECTION SHALL BE REPLACED TO NEXT EXPANSION JOINT OR EXISTING CURB ONLY MAY BE REMOVED BY SAWCUTTING CURB AND GUTTER SECTION AT FLOWLINE OF GUTTER.

STANDARD DETAIL G-454

CITY OF GLENDALE TRANSPORTATION



DRIVEWAY CRITERIA

	RESIDENTIAL		COMMERCIAL INDUSTRIAL			
	SINGLE FAMILY			MULTI- BUSINESS		
STD. CONSTRUCTION DETAIL	MAG 250 (1)	G-456 OR G-458	G-456 OR G-458	G-456 OR G-458		
STANDARD WIDTH (TWO WAY)	16'	30'	30'	30'		
MIN. WIDTH (TWO WAY)	16'	30'	24'	30'		
MAX. WIDTH (TWO WAY)	30'	40′ (2)	30'	40' (2)		
MIN. SPACE BETWEEN DRIVES (INSIDE EDGE TO INSIDE EDGE)	20'	150'	150'	150'		
MIN. DISTANCE FROM INTERSECTION (NEAREST P.C. TO INSIDE EDGE)	5'	150' (3)	150' (3)	150' (3)		
MAX. NO. OF DRIVES	2	2 PER FIRST 19 UNITS 3 PER 1200' FRONTAGE 4 PER 2600' FRONTAGE	2 PER STREET	1 PER 225' FRONTAGE 2 PER 600' FRONTAGE 3 PER 1200' FRONTAGE 4 PER 2600' FRONTAGE		

NOTES:

- 1. MAY BE G-456 OR G-458 ON ARTERIAL STREETS.
- (a) HIGH VOLUME DRIVEWAY WITH TWO OUTBOUND APPROACH LANES.
 (b) REQUIRES DECELERATION LANE UNLESS OTHERWISE APPROVED BY TRAFFIC ENGINEER.
 - (c) CAN BE INCREASED TO 46' WITH ADDITION OF RAISED MEDIAN.
- 3. MAY BE REDUCED TO 40' ON COLLECTOR AND RESIDENTIAL STREETS.
- 4. ALL DRIVEWAY WINGS OR P.C.'S WILL BEGIN NO CLOSER THAN 5' FROM ANY PROPERTY LINE.

APPROVED BY:

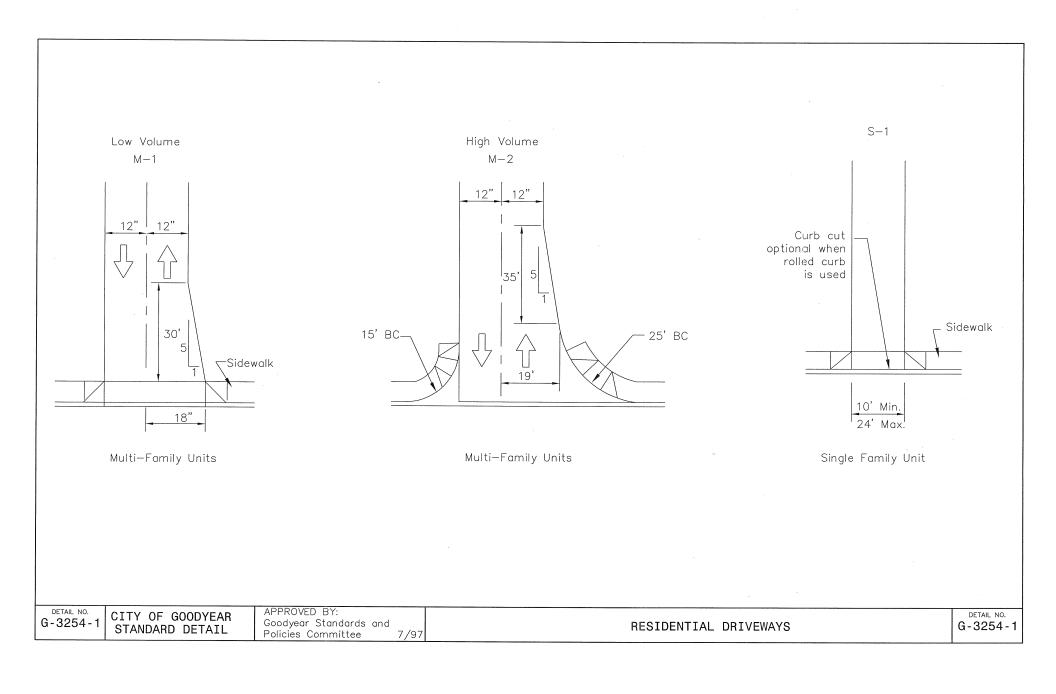
ANSPORTATION DIRECTOR

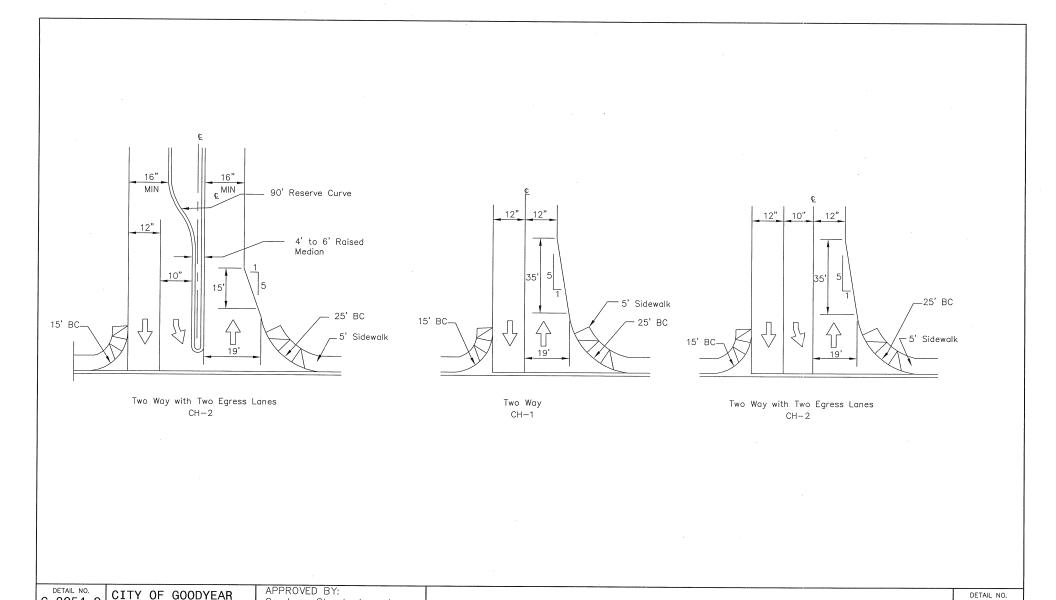
6.29.02

DATE

REVISED: JUNE 2002

POEMONO





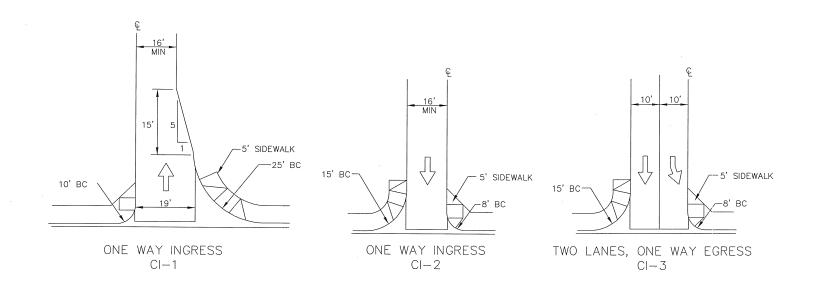
COMMERCIAL/INDUSTRIAL DRIVEWAYS - TYPE CH

G-3254-2

Goodyear Standards and Policies Committee

G-3254-2

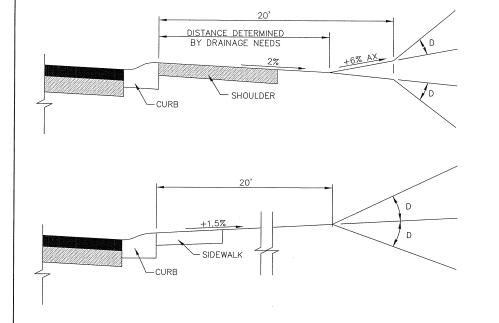
STANDARD DETAIL

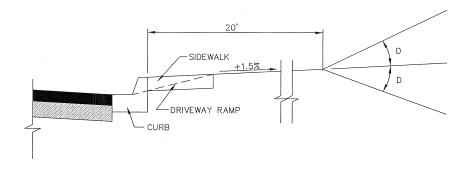


DETAIL NO. G-3254-3 CITY OF GOODYEAR STANDARD DETAIL APPROVED BY: Goodyear Standards and Policies Committee

COMMERCIAL/INDUSTRIAL DRIVEWAYS - TYPE CI

DETAIL NO. G-3254-3

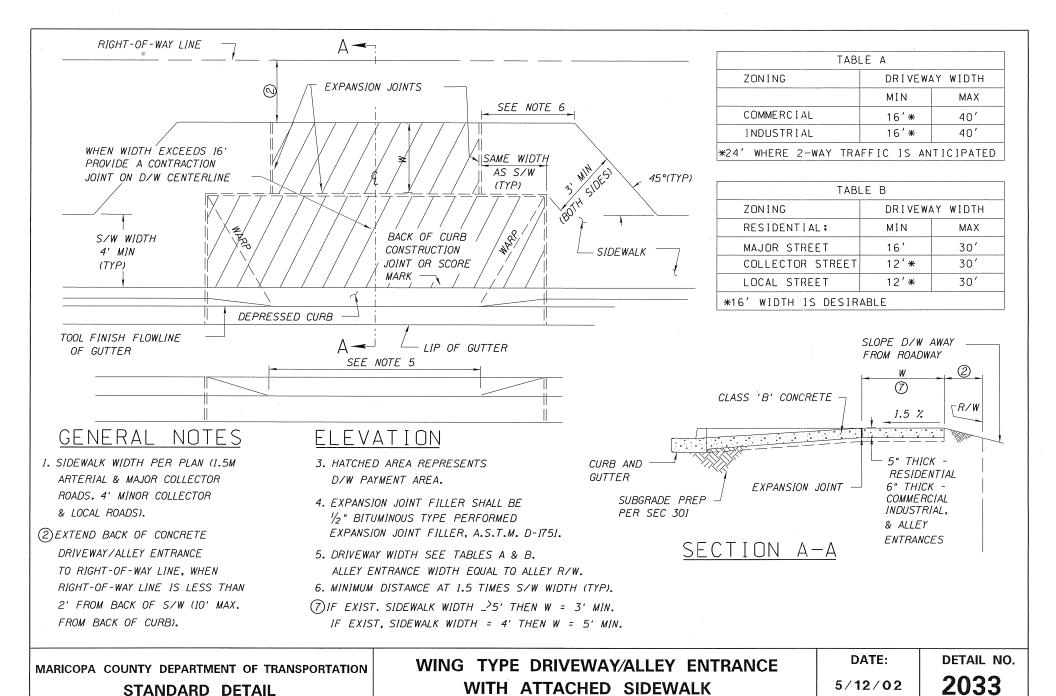




A.D.T. FOR DRIVEWAY		GRADE DIFFERENCE, D		
		DESIRABLE	MAXIMUM	
LOW VOLUME	1-500	6%	10%	
MEDIUM VOLUME	500-1500	3%	10%	
HIGH VOLUME	1500 OR MORE	0%	10%	

DETAIL NO. G-3258 CITY OF GOODYEAR STANDARD DETAIL APPROVED BY: Goodyear Standards and Policies Committee

NON-RESIDENTIAL DRIVEWAY GRADE STANDARDS



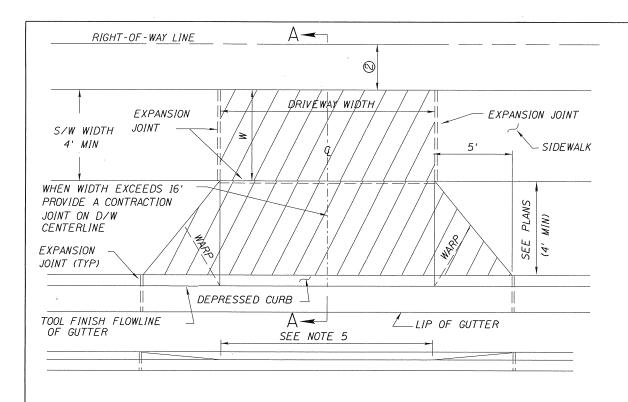


TABLE A					
ZONING	AY WIDTH				
	MIN	MAX			
COMMERCIAL	16′*	40'			
INDUSTRIAL	16′*	40'			
*24' WHERE 2-WAY TR	AFFIC IS A	NTICIPATED			

TABLE B					
ZONING DRIVEWAY WIDT					
RESIDENTIAL:	MIN	MAX			
MAJOR STREET	16′	30′			
COLLECTOR STREET	12′*	30′			
LOCAL STREET 12'* 30'					
* 16' WIDTH IS DESIRABLE					

GENERAL NOTES

- 1. SIDEWALK WIDTH PER PLANS (5' MIN ARTERIAL & MAJOR COLLECTOR ROADS. 4' MIN MINOR COLLECTOR & LOCAL ROADS).
- ② EXTEND BACK OF CONCRETE

 D/W-ALLEY ENTRANCE TO R/W

 LINE, WHEN R/W LINE IS LESS

 THAN 2' FROM BACK OF S/W

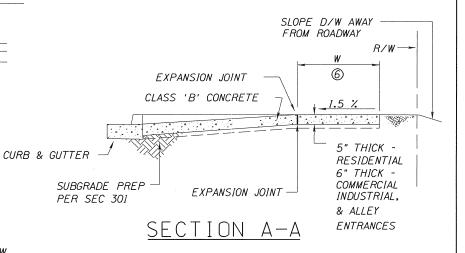
 (10'MAX. FROM BACK OF CURB).

ELEVATION

- 3. HATCHED AREA REPRESENTS
 D/W PAYMENT AREA.
- 4. EXPANSION JOINT FILLER SHALL BE

 1/2" BITUMINOUS TYPE PERFORMED

 EXPANSION JOINT FILLER, A.S.T.M. D-1751.
- 5. DRIVEWAY WIDTH SEE TABLES A & B.
 ALLEY ENTRANCE WIDTH EQUAL TO ALLEY R/W.
- (6) IF SIDEWALK WIDTH ≥ 5' THEN W = SIDEWALK WIDTH IF SIDEWALK WIDTH = 4' THEN W = 5' MIN.

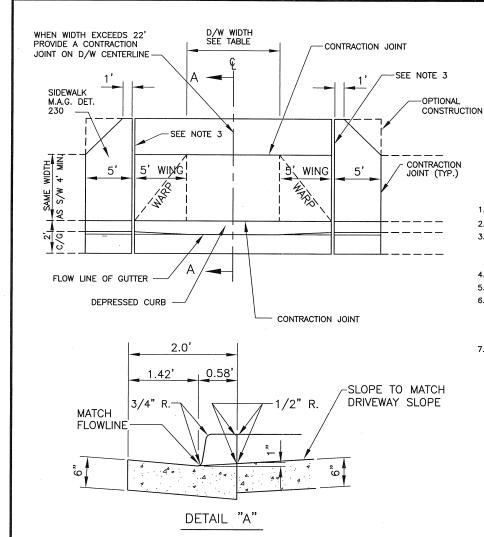


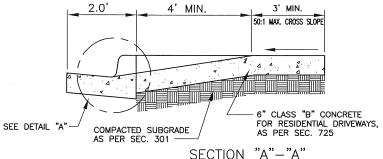
MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION STANDARD DETAIL

WING TYPE DRIVEWAYS/ALLEY ENTRANCES
WITH DETACHED SIDEWALK

DATE: 5/12/02

2034





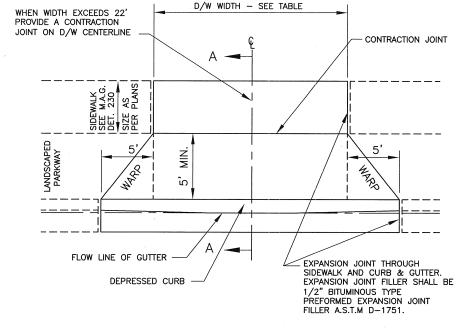
- 1. PERMIT FEES FOR DEPRESSED CURB SHALL BE PAID FOR AS COMBINED CURB AND GUTTER.
- PERMIT FEES FOR DRIVEWAY SHALL BE ON A SQUARE FOOTAGE BASIS.
- EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE AND SHALL COMPLETELY SEPARATE THE DRIVEWAY SLAB FROM THE SIDEWALK, EXTENDING FROM THE SURFACE TO THE SUBGRADE. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMES EXPANSION JOINT FILLER A.S.T.M. D-1751.
- REFER TO M.A.G. DETAIL 230 FOR CONTRACTION AND EXPANSION JOINT DETAILS.
- RESIDENTIAL DRIVEWAYS GREATER THAN 20' IN WIDTH REQUIRE CITY APPROVAL.
- DRIVEWAY WIDTH SHOULD MATCH NUMBER OF VEHICLE SPACES. FOR EXAMPLE, ONE-CAR CARPORT/GARAGE SHALL HAVE A 12' DRIVEWAY AND TWO-CAR GARAGES SHALL HAVE A 16'-20' DRIVEWAY. THREE-CAR GARAGES SHALL HAVE A 26' DRIVEWAY OR UP TO 30' WITH APPROVAL FROM THE CITY. UTILITY AND PROPERTY LINE CONFLICTS SHALL BE CONSIDERED. BONDING IS REQUIRED FOR THREE-CAR DRIVEWAY CUTS IN NEW SUBDIVISIONS.
- 7. WHEN INSTALLING A DRIVEWAY IN EXISTING SIDEWALK AND/OR CURB, THE FOLLOWING NOTES APPLY:

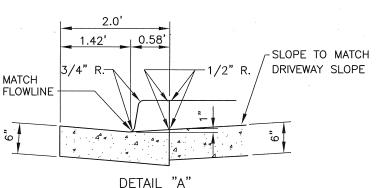
A. REMOVE CURB PORTION ONLY WHEN CONSTRUCTING NEW DEPRESSION IN EXISTING CURB & GUTTER. EXISTING CURB SHALL BE REMOVED BY SAWCUTTING CURB HORIZONTALLY TO GRADES AS SHOWN IN DETAIL A. DAMAGED GUTTER SHALL BE REMOVED AND REPLACED WHERE DIRECTED BY

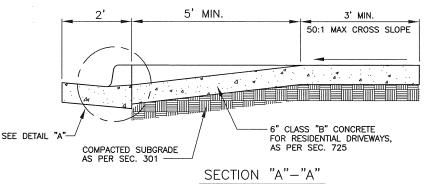
B. SIDEWALK MUST BE SAWCUT TO FULL DEPTH OR REMOVED TO NEXT EXPANSION JOINT.

DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH
RESIDENTIAL ZONING				
MAJOR STREETS	16'*	30,	В	6"
COLLECTOR STREETS	12'**	30'	В	6"
LOCAL STREETS	12'	20'***	В	6"

- ONE-WAY ONLY, 24' MIN. FOR TWO-WAY TRAFFIC
- 16' DESIRABLE *** SEE NOTE 6





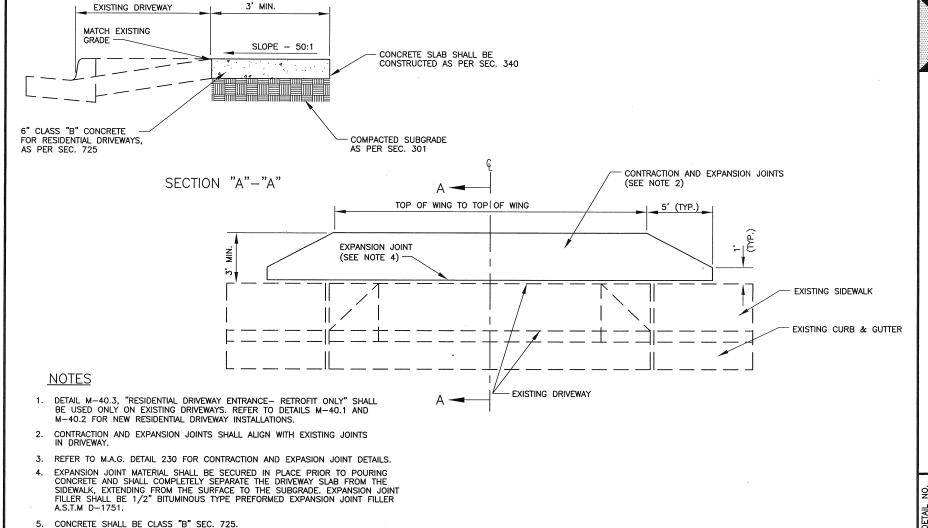


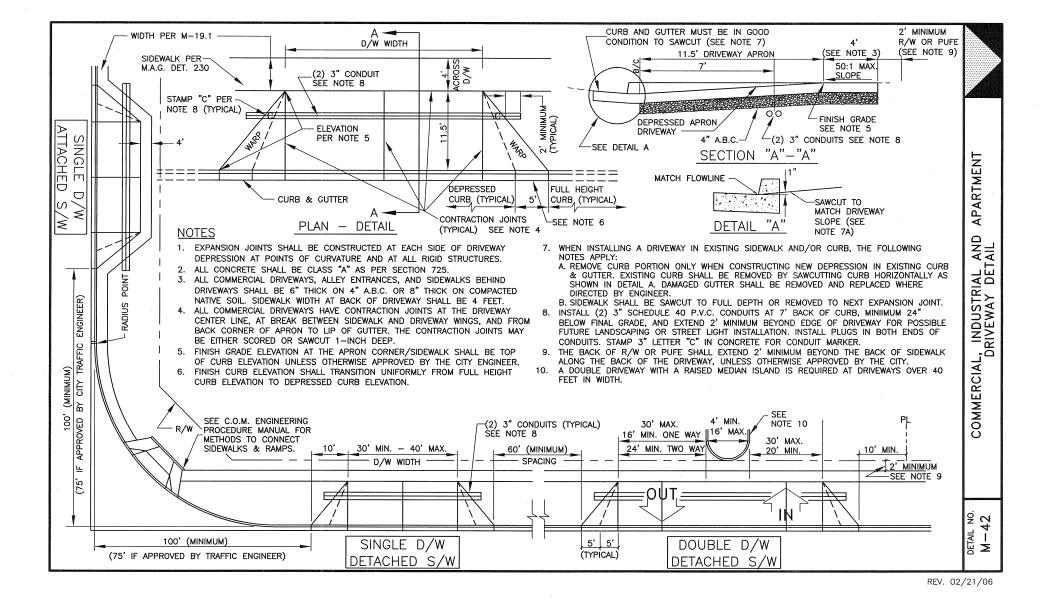
- 1. PERMIT FEES FOR DEPRESSED CURB SHALL BE PAID FOR AS COMBINED CURB AND GUTTER.
- 2. PERMIT FEES FOR DRIVEWAY SHALL BE ON A SQUARE FOOTAGE BASIS.
- 3. EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE AND SHALL COMPLETELY SEPARATE THE DRIVEWAY SLAB FROM THE SIDEWALK, EXTENDING FROM THE SURFACE TO THE SUBGRADE. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751.
- 1/4" GROOVES AT 1" O.C. FULL WIDTH OF RAMP SECTION, EACH SIDE OF DRIVEWAY. SEE DETAIL NO. 1 ON TYPE D RAMP M.A.G. DETAIL 234.
- 5. REFER TO M.A.G. DETAIL 230 FOR CONTRACTION AND EXPANSION JOINT DETAILS.
- 6. RESIDENTIAL DRIVEWAYS GREATER THAN 20' IN WIDTH REQUIRE CITY APPROVAL.
- 7. DRIVEWAY WIDTH SHOULD MATCH NUMBER OF VEHICLE SPACES. FOR EXAMPLE, ONE—CAR CARPORT/GARAGE SHALL HAVE A 12' DRIVEWAY AND TWO—CAR GARAGES SHALL HAVE A 16'—20' DRIVEWAY. THREE—CAR GARAGES SHALL HAVE A 26' DRIVEWAY OR UP TO 30' WITH APPROVAL FROM THE CITY. UTILITY AND PROPERTY LINE CONFLICTS SHALL BE CONSIDERED. BONDING REQUIRED FOR DRIVEWAY WIDTH OVER 20'.
- 8. WHEN INSTALLING A DRIVEWAY IN EXISTING SIDEWALK AND/OR CURB, THE FOLLOWING NOTES APPLY: A. REMOVE CURB PORTION ONLY WHEN CONSTRUCTING NEW DEPRESSION IN EXISTING CURB & GUTTER. EXISTING CURB SHALL BE REMOVED BY SAWCUTTING CURB HORIZONTALLY TO GRADES AS SHOWN IN DETAIL A. DAMAGED GUTTER SHALL BE REMOVED AND REPLACED WHERE DIRECTED BY ENGINEER.
 - B. SIDEWALK MUST BE SAWCUT TO FULL DEPTH OR REMOVED TO NEXT EXPANSION JOINT.

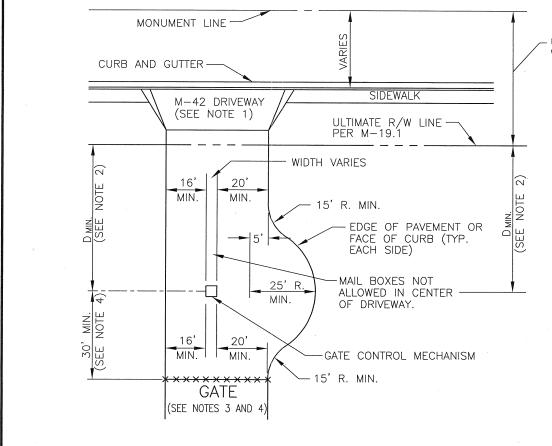
MIN.	MAX.	CLASS	DEPTH
16'*	30'	В	6"
12'**	30'	В	6"
12'	30'***	В	6"
	16'* 12'**	16'* 30' 12'** 30'	16'* 30' B 12'** 30' B

- * ONE-WAY ONLY, 24' MIN. FOR TWO-WAY TRAFFIC
- ** 16' DESIRABLE *** SEE NOTE 7









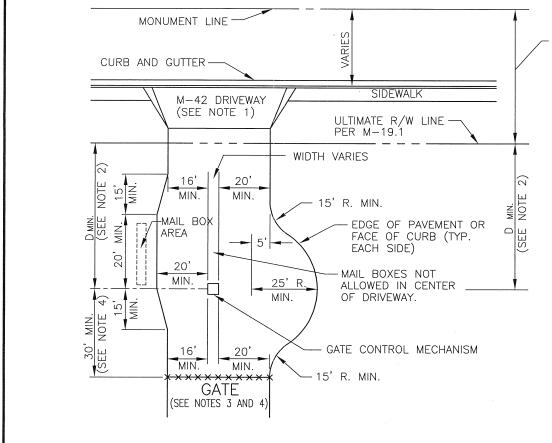
ULTIMATE RIGHT-OF-WAY WIDTH PER M-19.1

NOTES:

- DRIVEWAY PER MESA STANDARD DETAIL M-42. DOUBLE DRIVEWAY MAX. WIDTH = 60'.
- 2. DMIN. FROM ULTIMATE R/W LINE PER M-19.1 TO CENTERLINE OF GATE CONTROL MECHANISM. DMIN. VARIES IN ACCORDANCE TO DENSITY OF RESIDENTIAL DEVELOPMENT AS SHOWN BELOW:

DEVELOPMENT UNITS	D MIN.
LESS THAN 25 25 TO 100 101 TO 150 151 TO 200 GREATER THAN 200	20' 40' 60' 80' 100'

- 3. GATE INSTALLED AT BEGINNING OF 15' RADIUS.
- 4. 30' MIN. DIMENSION FROM CENTERLINE OF GATE CONTROL MECHANISM TO FACE OF GATE.
- WHERE EXISTING CONDITIONS DEEM IT NECESSARY TO REQUEST A DESIGN EXCEPTION OF THE GATED ACCESS, THIS STANDARD MAY BE MODIFIED BY THE TRAFFIC ENGINEER AND/OR CITY ENGINEER.



ULTIMATE RIGHT-OF-WAY WIDTH PER M-19.1

NOTES:

- DRIVEWAY PER MESA STANDARD DETAIL M-42. DOUBLE DRIVEWAY MAX. WIDTH = 60'.
- 2. D MIN. FROM ULTIMATE R/W LINE PER M-19.1 TO CENTERLINE OF GATE CONTROL MECHANISM. D MIN. VARIES IN ACCORDANCE TO DENSITY OF RESIDENTIAL DEVELOPMENT AS SHOWN BELOW:

DEVELOPMENT UNITS	D MIN.
LESS THAN 100	40'
100 TO 150	60'
151 TO 200	80'
GREATER THAN 200	100'

- 3. GATE INSTALLED AT BEGINNING OF 15' RADIUS.
- 4. 30' MIN. DIMENSION FROM CENTERLINE OF GATE CONTROL MECHANISM TO FACE OF GATE.
- 5. WHERE EXISTING CONDITIONS DEEM IT NECESSARY TO REQUEST A DESIGN EXCEPTION OF THE GATED ACCESS, THIS STANDARD MAY BE MODIFIED BY THE TRAFFIC ENGINEER AND/OR CITY ENGINEER.

PEORIA DETAIL 259

DRIVEWAY CRITERIA



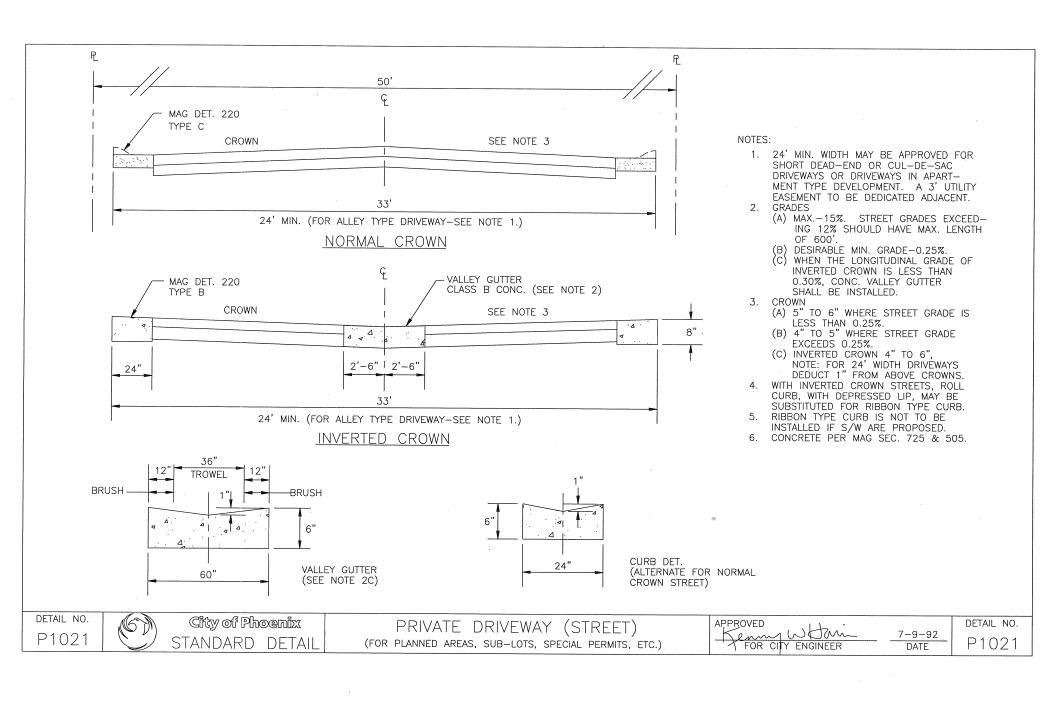
APPROVALS:

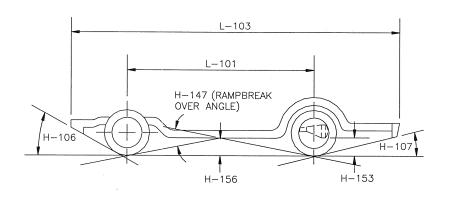
CITY ENGINEER	DATE				
	RESIDENTIAL		COMMERCIAL INDUSTRIAL		
	SINGLE FAMILY	MULTI- FAMILY	SINGLE BUSINESS	MULTI- BUSINESS	
STD. CONSTRUCTION DETAIL	MAG 250 (1)	PEORIA 253 OR 254	PEORIA 253 OR 254	PEORIA 253 OR 254	
STANDARD WIDTH (TWO WAY)	16'	24'	30'	30'.	
MIN. WIDTH (TWO WAY)	16'	24'	24'	24'	
MAX. WIDTH (TWO WAY)	24'	40'(2)	30'	40'(2)	
MIN. SPACE BETWEEN DRIVES (INSIDE EDGE TO INSIDE EDGE)	10'	150'	150'	150'	
MIN. DIST. FROM INTERSECTION (NEAREST P.C. TO INSIDE EDGE)	5'	150' (3)	150' (3)	150' (3)	
		2 PER FIRST 19 UNITS		1 PER 225' FRONTAGE	
MAX. NO. OF DRIVES	2,	3 PER 1200' FRONTAGE	2 PER STREET	2 PER 800' FRONTAGE 3 PER 1200'	
				FRONTAGE	
		4 PER 2600' FRONTAGE		4 PER 2600' FRONTAGE	

NOTES:

- 1. MAY BE PEORIA 253 OR PEORIA 254 ON ARTERIAL STREETS.
- 2. (a) HIGH VOLUME DRIVEWAY WITH TWO OUTBOUND APPROACH LANES.
 - (b) REQUIRES DECELERATION LANE UNLESS OTHERWISE APPROVED BY TRAFFIC ENGINEER.
 - (c) BE INCREASED TO 46' WITH ADDITION OF RAISED MEDIAN.
- 3. MÁY BE REDUCED TO 40' ON COLLECTOR AND RESIDENTIAL STREETS.
- 4. ALL DRIVEWAY WINGS OR P.C.'S WILL BEGIN NO CLOSER THAN 5' FROM ANY PROPERTY LINE.

I:\GUIDE\DETAILS\259.DWG





- 1. IF THE SUM OF THE STREET CROWN SLOPE, NORMALLY A NEGATIVE SLOPE OF 1.72° (0.03), AND THE POSITIVE SLOPE IF THE DRIVEWAY IS EQUAL TO OR EXCEEDS THE ANGLE OF DEPARTURE, 8.3° (0.146), THE DRIVEWAY MUST BE REDESIGNED TO A POSITIVE SLOPE OF NOT MORE THAN 6° (0.105).
- ADDITIONAL INCREASES IN THE POSITIVE SLOPE MAY BE MADE AT TEN (10) FOOT INTERVALS. EACH CHANGE CANNOT EQUAL OR EXCEED THE ANGLE OF DEPARTURE, 8.3* (0.146).
- 3. CHANGES FROM A POSITIVE SLOPE TO A NEGATIVE SLOPE CANNOT EQUAL OR EXCEED THE BREAKOVER ANGLE OF 5.53* (0.097).
- 4. WHEN MAKING CHANGE FROM A NEGATIVE SLOPE TO A POSITIVE SLOPE, THE SUM OF THE TWO SLOPES CANNOT EQUAL OR EXCEED THE ANGLE OF DEPARTURE, 8.3 (0.146).

GROUND CLEARANCE DIMENSIONS

H-106 - ANGLE OF APPROACH = 8.6 DEGREES H-107 - ANGLE OF DEPARTURE = 8.3 DEGREES

H-147 - RAMP BREAKOVER ANGLE = 5.53 DEGREES

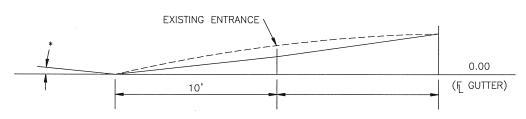
H-153 - REAR AXLE TO GROUND = 5.5 INCHES

H-156 - MINIMUM GROUND CLEARANCE = 3.1 INCHES

L-101 - WHEELBASE = 9.88 FEET

L-103 - VEHICLE LENGTH = 18.42 FEET

THESE DIMENSIONS ARE FROM THE 1982 MOTOR VEHICLE MANUFACTURERS ASSOCIATION PUBLICATION. COPIES MAY BE OBTAINED FROM TECHNICAL AFFAIRS DIVISION, MOTOR VEHICLE MANUFACTURERS ASSOCIATION, 300 NEW CENTER BUILDING, DETROIT, MICHIGAN 48202.



* 0.03% MAXIMUM TRANSVERSE SLOPE ALLOWABLE

DETAIL NO.
P1164

City of Phoenix STANDARD DETAIL

MAXIMUM DRIVEWAYS & ALLEYS SLOPE

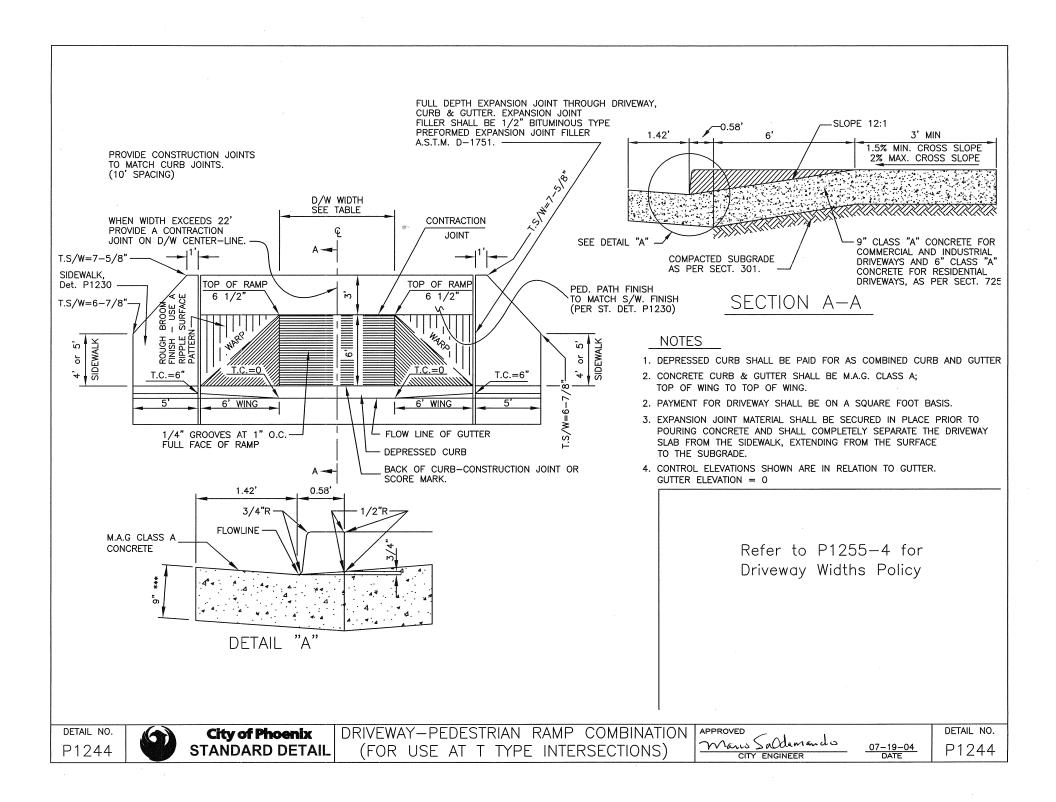
APPROVED

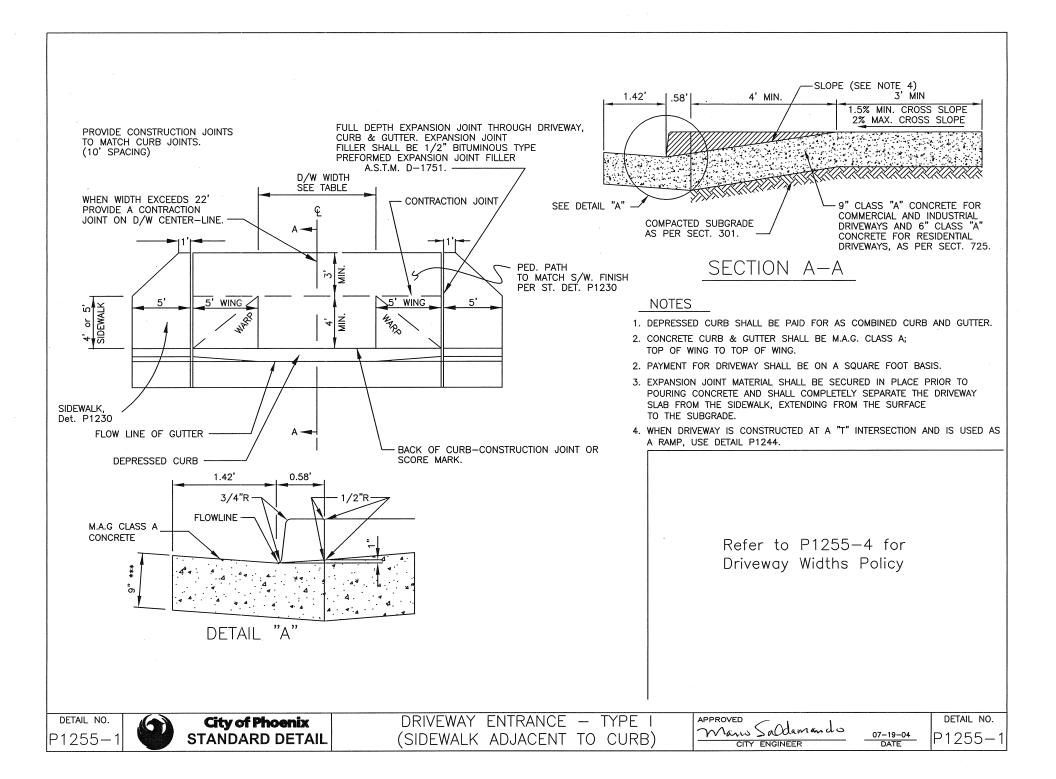
Kenny Wtom

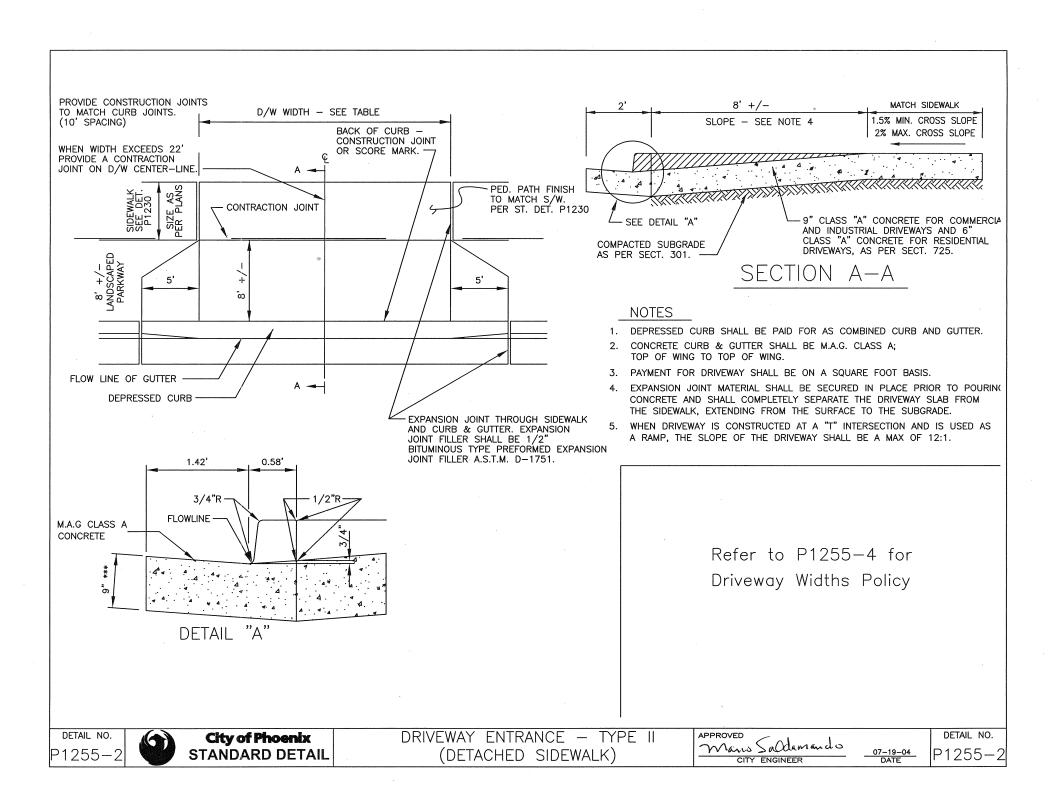
CITY ENGINEER

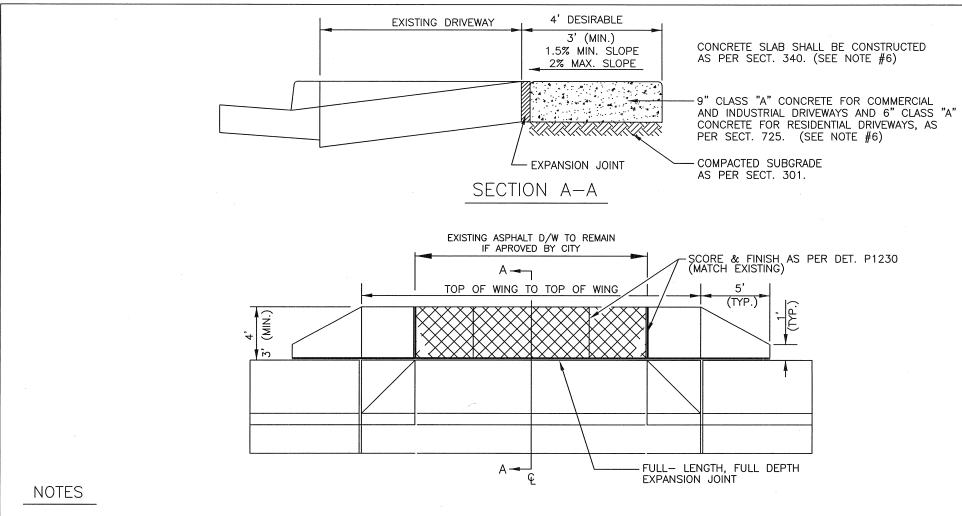
DETAIL NO.

05-31-94
PATE
PATE



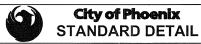






- 1. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751.
- 2. CONTROL & EXPANSION JOINTS SHALL ALIGN WITH EXISTING JOINTS IN DRIVEWAY.
- 3. CONCRETE SHALL BE CLASS "A", SECT. 725.
- 4. EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE AND SHALL COMPLETELY SEPARATE THE DRIVEWAY SLAB FROM THE SIDEWALK, EXTENDING FROM THE SURFACE TO THE SUBGRADE.
- 5. EXPANSION JOINT MATERIAL SHALL BE USED WHEN NEW POURING IS ADJACENT TO EXISTING DRIVEWAY AREA.
- 6. XXXXX INDICATES AREA WHICH MAY REMAIN ASPHALT IF THE CROSS SLOPE & PAVING CONDITIONS MEET ADA STANDARDS.

detail no. P1255–3



DRIVEWAY WIDTHS POLICY

	TYPE OF DEVELOPMENT						
STREET CLASSIFICATION	SINGLE FAMILY	MutliFamily/ <30 spaces	Commercial >30 spaces	GAS STATION	TRUCK FACILITIES	GATES	
LOCAL RESIDENTIAL	12' ONE CAR 16' ONE CAR — RECOMMENDED	24' – 30'	30'			**	
LOCAL COMMERCIAL/INDUSTRIAL		30' - 40' ***	30' - 40' ***	40' ***	40' – 50' ***	**	
COLLECTOR RESIDENTIAL	16' MINIMUM	30' ***	30' ***	40' ***		**	
COLLECTOR COMMERCIAL/INDUSTRIAL		30' - 40' ***	30' - 50' ***	40' - 50' ***	40' - 50' ***	**	
ARTERIAL	DISCOURAGED EXCEPT FOR LARGE LOT-CIRCULAR DRIVES *	30' ***	40' ***	40' – 50' ***	40' - 50' ***	**	

- * MINIMUM 82' PROPERTY WIDTH
- ** SEE GATE ACCESS TURNAROUND HANDOUT DSD
- *** Median -30' maximum unless there is significant truck access then 40'

Local/Collector One Way		Arterial One Way		
ln	Out	In	Out	
24'	16'	24'	20'	

NOTE

1) Driveways greater than 50' are not permitted by City Code unless a waiver of the ordinance is obtained from the driveway hearing officer or his designee.
2) Deviation from this policy can be determined by the City of Phoenix traffic engineer.

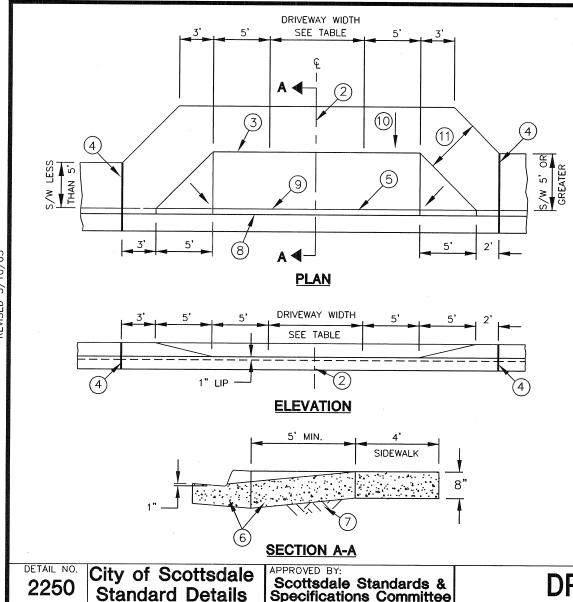
DETAIL NO.
P1255-4

City of Phoenix
STANDARD DETAIL

DRIVEWAY WIDTHS
POLICY

APPROVED

Warris Suddamendo 08-08-03 DATE
P1255-4

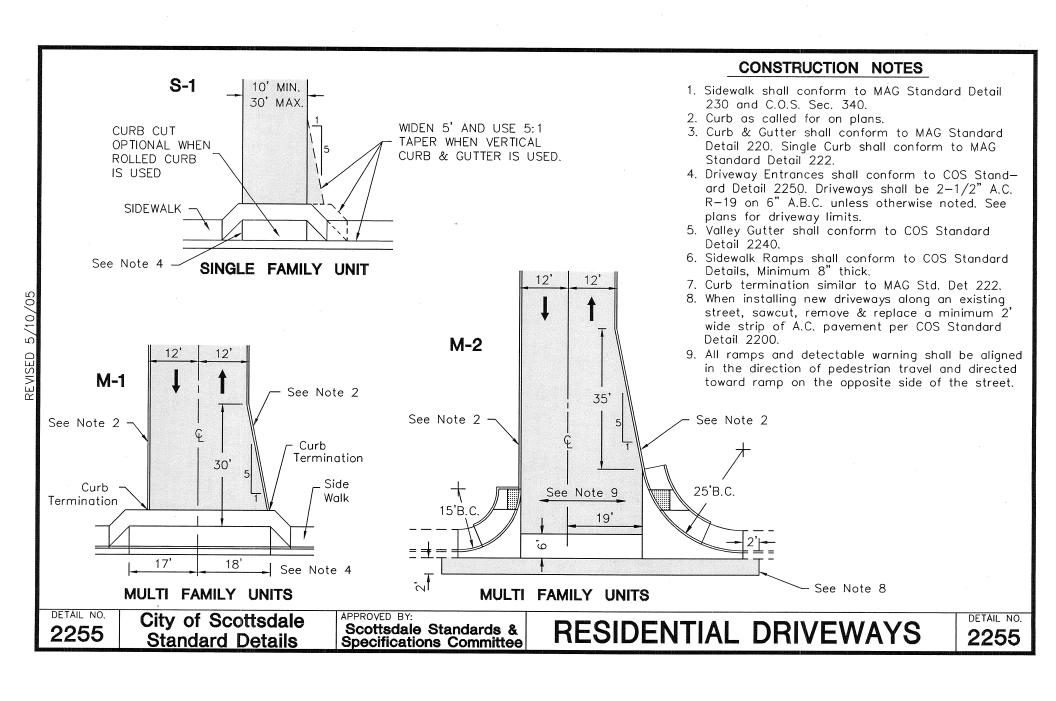


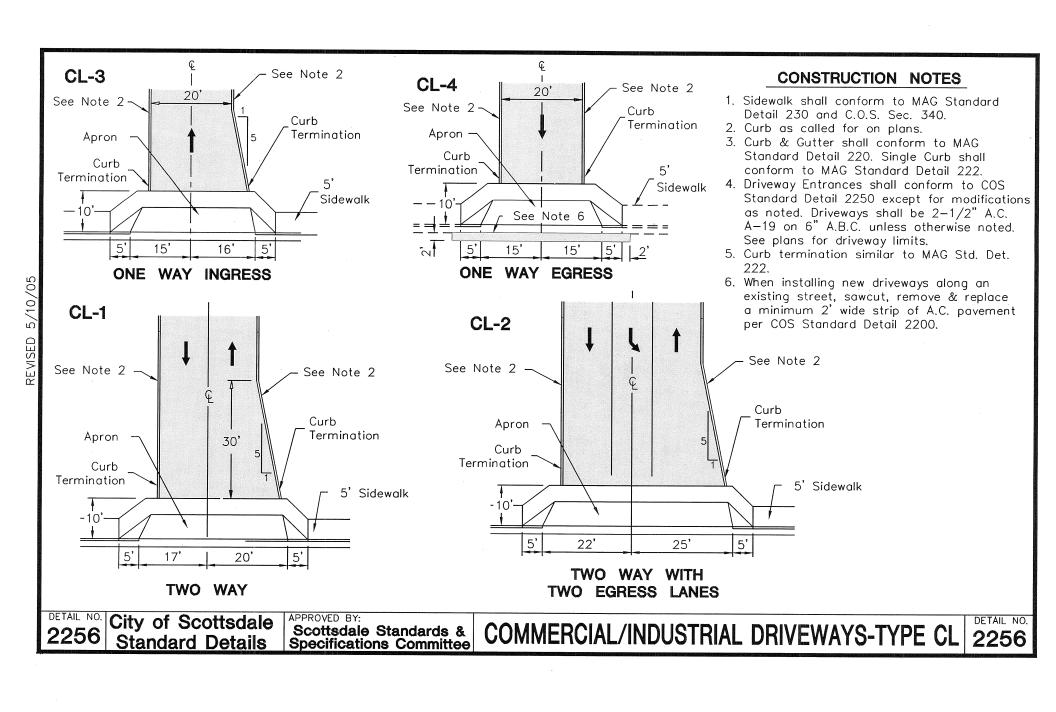
- 1 DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.
- CONTRACTION JOINT ON DRIVEWAY CENTERLINE.
- BACK OF DRIVEWAY ENTRANCE CONSTRUCTION JOINT OR SCORE MARK.
- 4 MASTIC EXPANSION JOINT THROUGH CURB AND GUTTER. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D-1751.
- 5 BACK OF CURB CONSTRUCTION JOINT OR SCORE MARK.
- CLASS 'B' CONCRETE, MAG SECTION 725.
- 7 SUBGRADE PREPARATION, MAG SECTION 301.
- FLOW LINE OF GUTTER.
- DEPRESSED CURB.
- 10 2% MAXIMUM CROSS SLOPE, 1,5% MINIMUM CROSS SLOPE
- 11 CONCRETE SIDEWALK PER MAG DETAIL 230, MODIFIED. THICKNESS = 8"

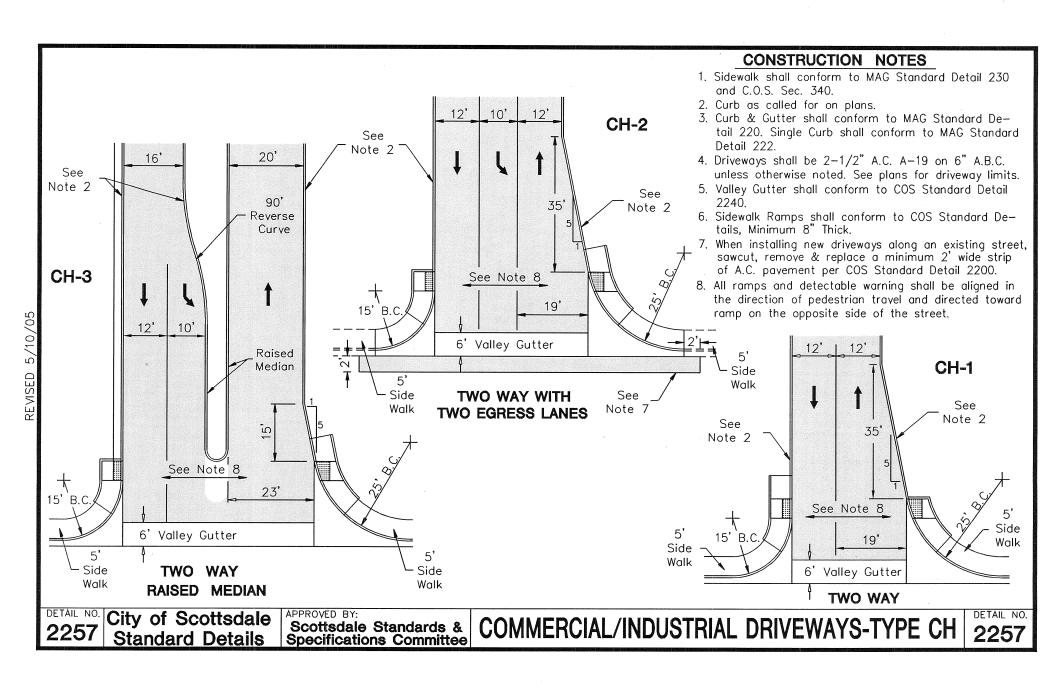
COMMERCIAL & INDUSTRIAL						
DRIVEWAY WIDTH	MIN.	MAX.	CLASS			
COMMERCIAL ZONING INDUSTRIAL ZONING + 24' MIN. FOR TWO WAY TRAFFIC	+ 16' + 16'	40' 40'	B B			
RESIDENTIAL						
DRIVEWAY WIDTH	MIN.	MAX.	CLASS			
MAJOR STREET COLLECTOR STREET LOCAL STREET * 16' DESIRABLE	16' *12' 12'	30' 30' 30'	B B B			

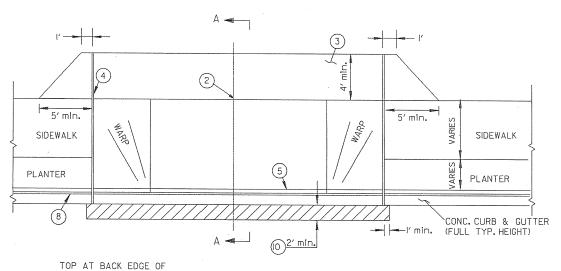
Scottsdale Standards & Specifications Committee

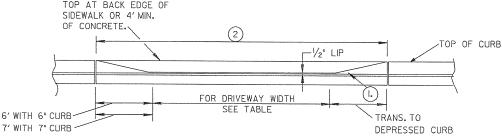
DRIVEWAY ENTRANCES

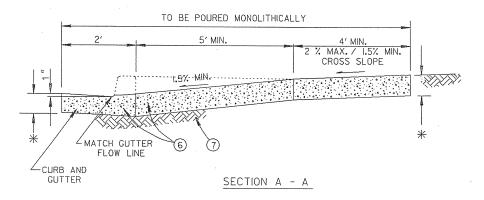












NOTES

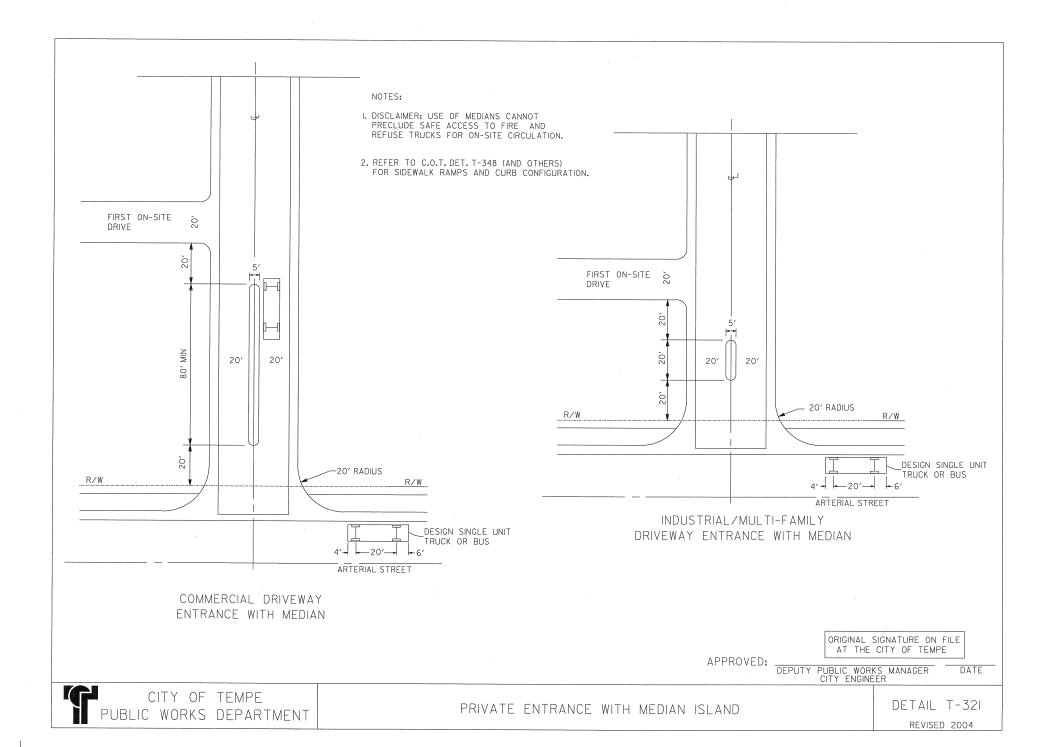
- (I.) DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.
- WHEN WIDTH EXCEEDS 22' PROVIDE A CONTRACTION
 JOINT ON D/W CENTERLINE. WHEN WIDTH IS 30' OR LARGER DIVIDE
 INTO THREE EQUAL PARTS AND PROVIDE A CONTRACTION JOINT.
- 3. 4' MIN. WIDTH OF EXTRA CONCRETE WITH 2% MAX./1.5% MIN. CROSS SLOPE PAY FOR AS DRIVEWAY.
- 4. MASTIC EXPANSION JOINT THROUGH CURB & GUTTER. EXPANSION JOINT FILLER SHALL BE $\frac{1}{2}$ " BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER A.S.T.M. D 1751.
- (5.) BACK OF CURB CONSTRUCTION JOINT OR SCORE MARK.
- (6.) CLASS 'B' CONCRETE, SECT. 725. DEPTH OF CURB AND GUTTER CONCRETE TO MATCH DRIVEWAY.
- (7.) SUBGRADE PREPARATION, SECT. 301.
- (8.) FLOW LINE OF GUTTER.
- 9. WATER SERVICE TAP AND/OR WATER METER SHALL NOT BE INSTALLED WITHIN A DRIVEWAY ENTRANCE, EXISTING UTILITIES SHALL BE RELOCATED IF IN CONFLICT WITH NEW ENTRANCE.
- (D) 2' MIN. SAWCUT & REMOVAL OF ASPHALT ON EXISTING STREETS.
 PAVEMENT REPLACEMENT "SHALL BE MIN. 3' THICK PER DETAIL
 T-312 OR T-313, ON 12" ABC ON MINIMUM 6" OF PREPARED SUBGRADE.
 OR MATCH EXISTING (WHICHEVER IS GREATER).

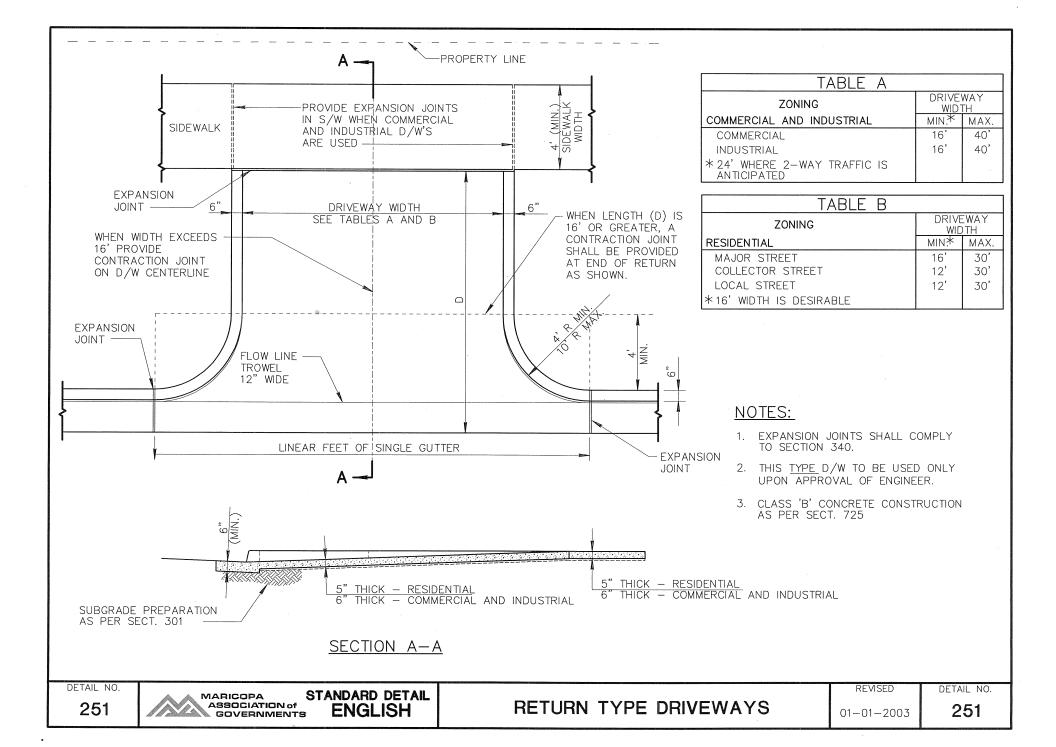
process and the same of the sa				
COMMERCIAL &	INDUS.	TRIAL		*
DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH
MAJOR STREET	30′	40′	В	9"
INDUSTRIAL & COLLECTOR ST.	30′	40′	В	9"
·				
RESIDENTIAL				*
DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH
MAJOR STREET	201	30′	В	6"
COLLECTOR STREET	20′	30′	В	6"
LOCAL STREET	20′	30′	В	6"

APPROVED:

DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER DATE





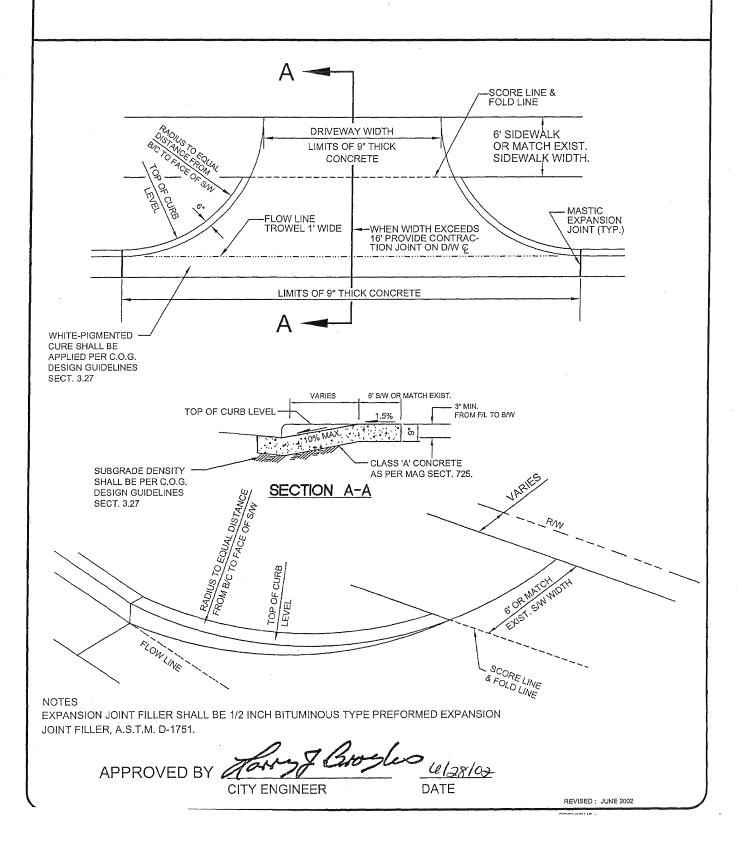


STANDARD DETAIL G-456

CITY OF GLENDALE ENGINEERING



RETURN TYPE DRIVEWAYS WITH DETACHED SIDEWALK

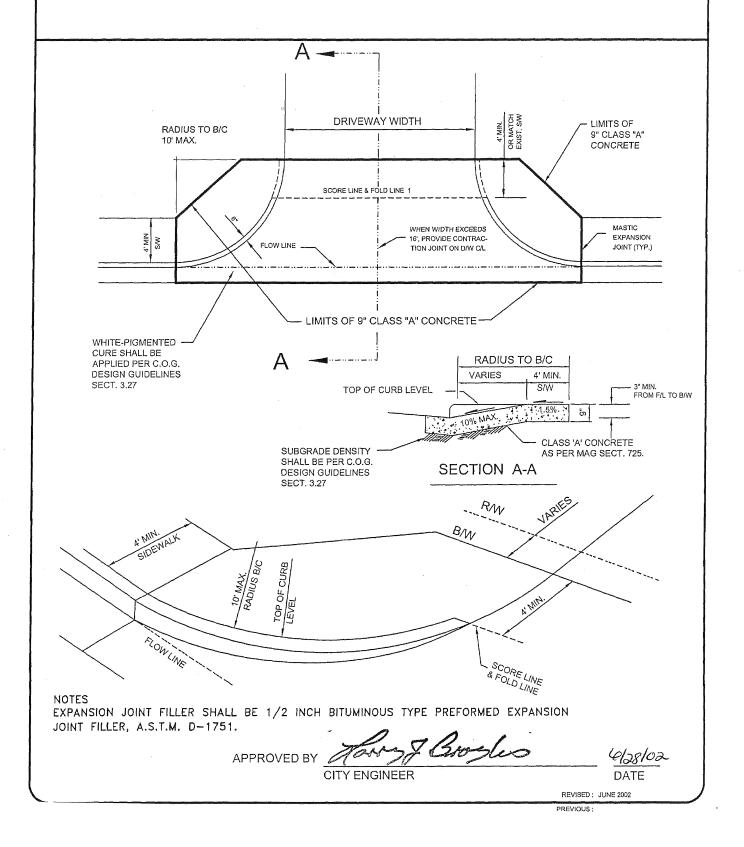


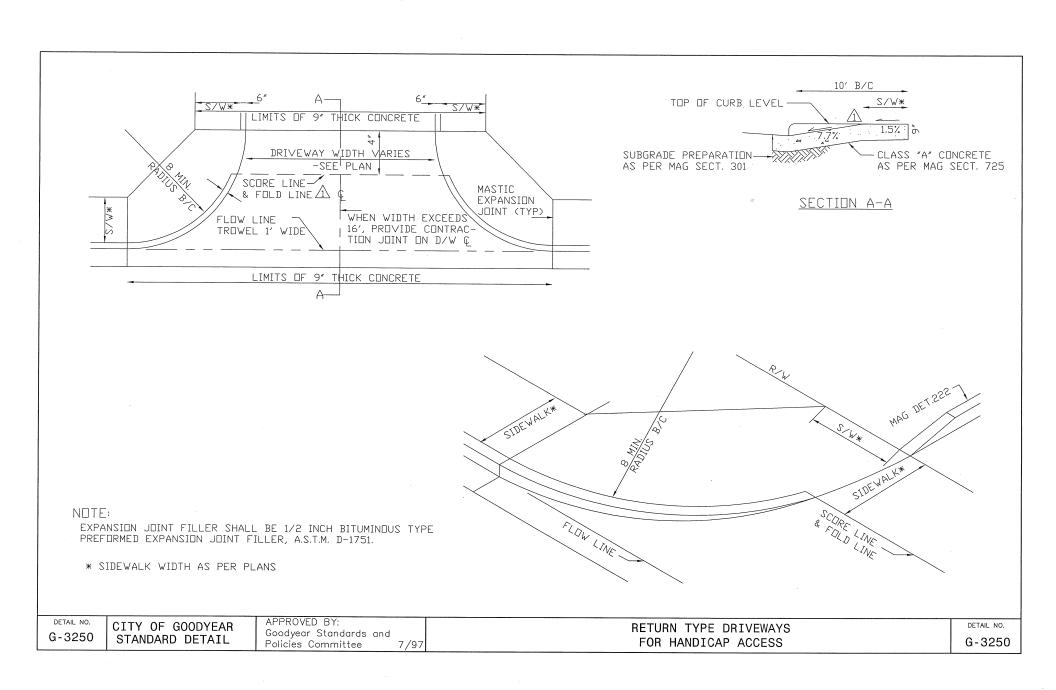
STANDARD DETAIL G-458

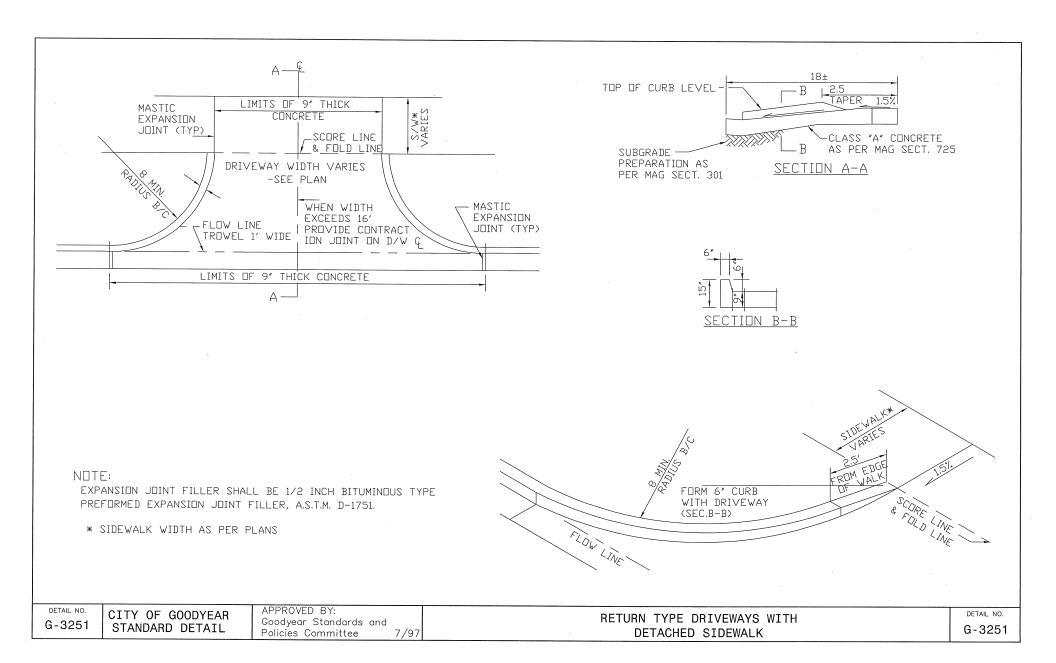
CITY OF GLENDALE ENGINEERING

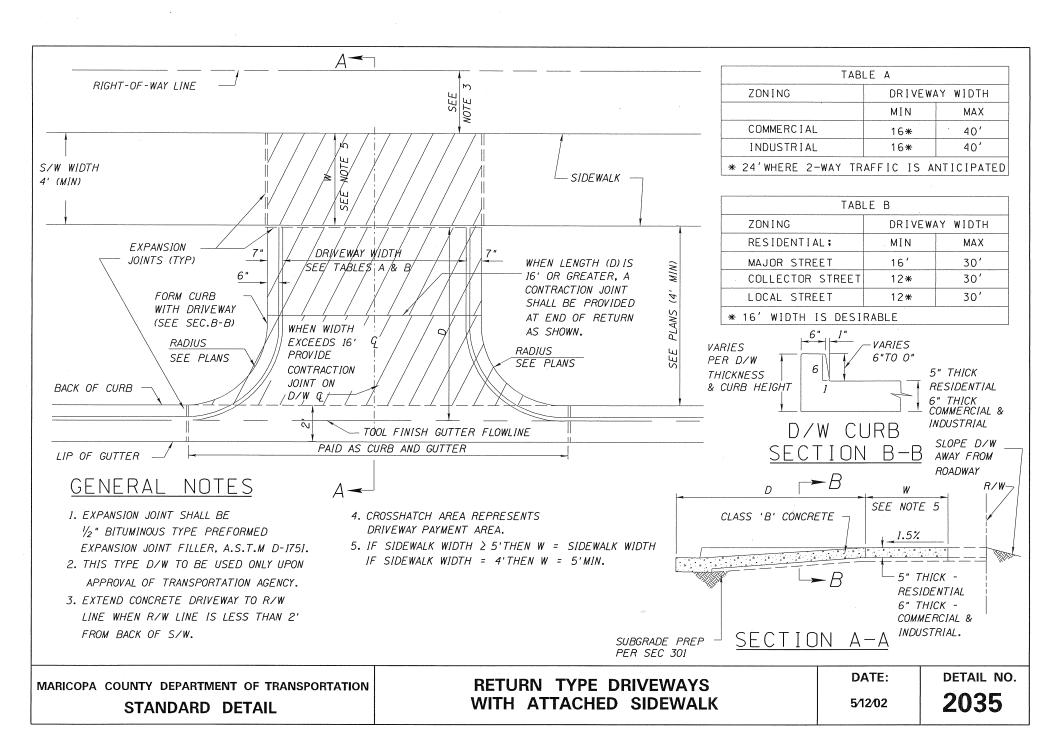


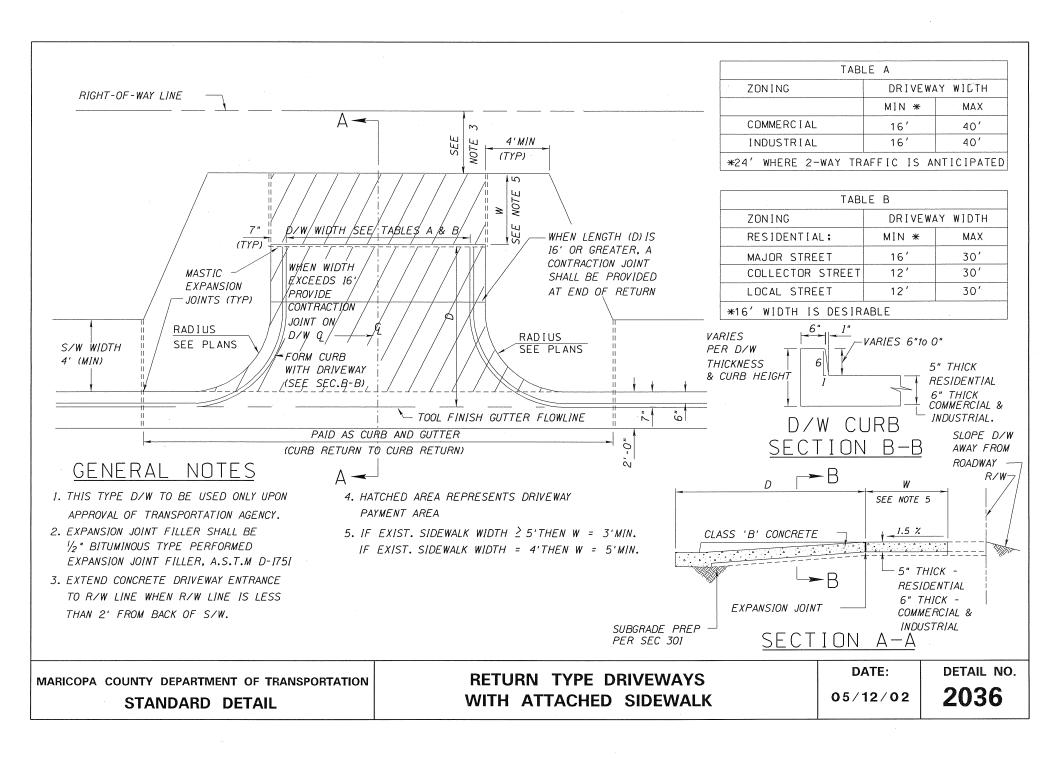
RETURN TYPE DRIVEWAYS WITH ATTACHED SIDEWALK











PEORIA DETAIL 253

RETURN TYPE DRIVEWAYS WITH ATTACHED SIDEWALK



11/03/00

APPROVALS:

CITY ENGINEER DATE LIMITS OF 9" THICK MASTIC EXPANSION 4' MIN. CONCRETE SĪDEWALK JOINT (TYP.) VARIES DRIVEWAY WIDTH VARIES 4' MIN. SIDEWALK SEE PLAN VARIES SCORE LINE & FOLD LINE FLOW LINE - WHEN WIDTH EXCEED'S 16' PROVIDE CONTRAC-TION JOINT ON D/W C TROWEL 1' WIDE LIMITS OF 9" THICK CONCRETE MASTIC — EXPANSION JOINT (TYP.) 10' B/C TOP OF CURB 1.5% 7.7% 9" CLASS "A" CONCRETE SUBGRADE AS PER M.A.G. SEC. 725 PREPARATION AS PER M.A.G. SEC. 301 MAG. DET. 222 TION à MH. D:\LLOYDS\DETAILS\253.DWG VARIES FLOW LINE SCORE LINE & FOLD LINE NOTES: 9 EXPANSION JOINT FILLER SHALL BE 1/2 INCH BITUMINUS TYPE PRE-FORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751

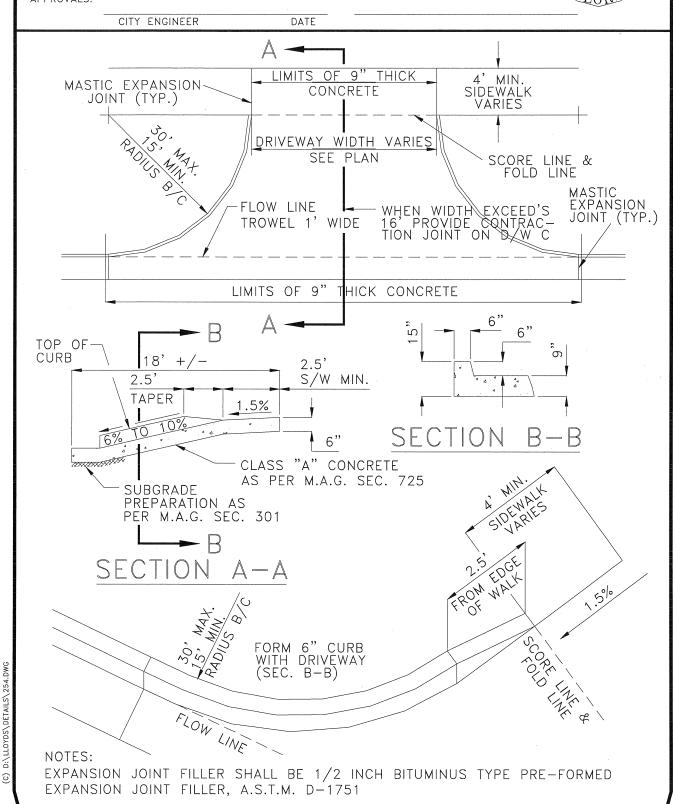
PEORIA DETAIL 254

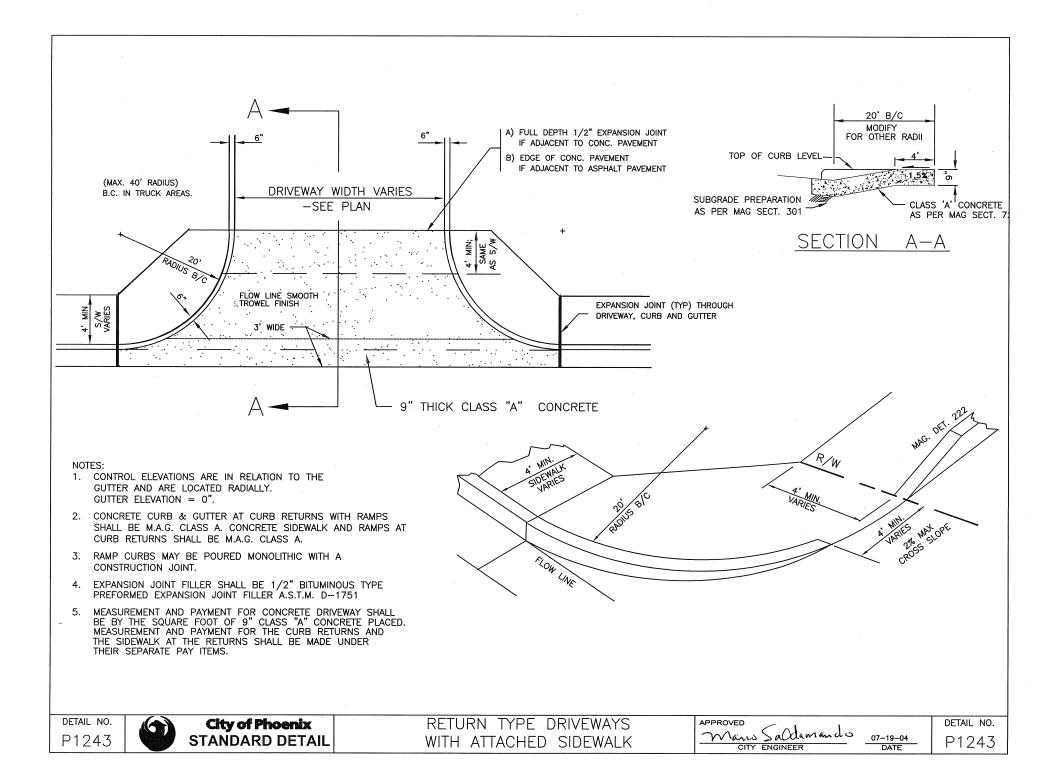
RETURN TYPE DRIVEWAYS WITH DETACHED SIDEWALK

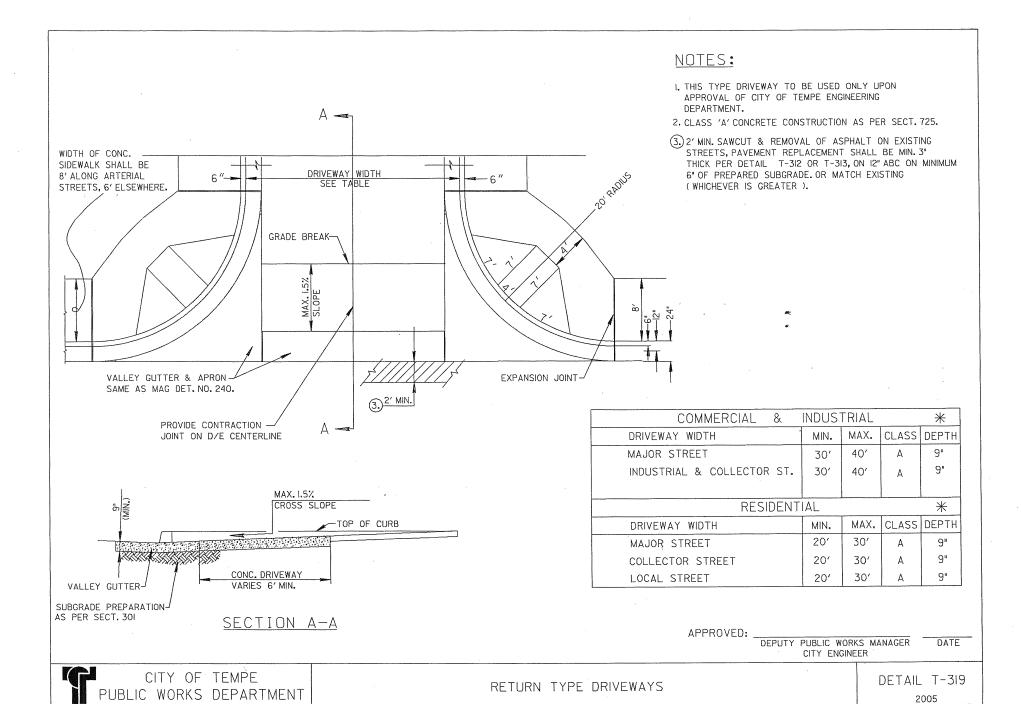


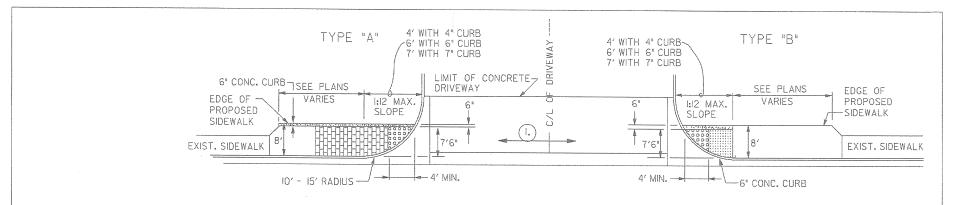
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APPROVALS:

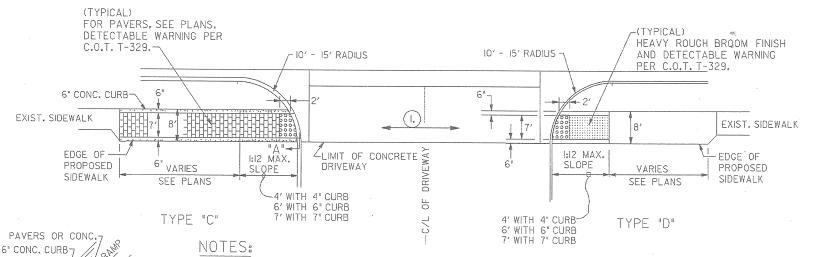








C/L OF STREET



CURB & GUTTER \(\simega

VIEW "A" CONC. CURB TYPICAL

- ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL AND DIRECTED TOWARD RAMP ON OPPOSITE SIDE OF DRIVEWAY.
- 2. FOR DETECTABLE WARNING SEE C.O.T. DET. T-329, SLOPING TRANSITION FROM RAMP TO CURB SEE C.O.T. DET. T-326.
- 3. FOR INFORMATION OF DRIVEWAY SEE DETAIL NO. T-319

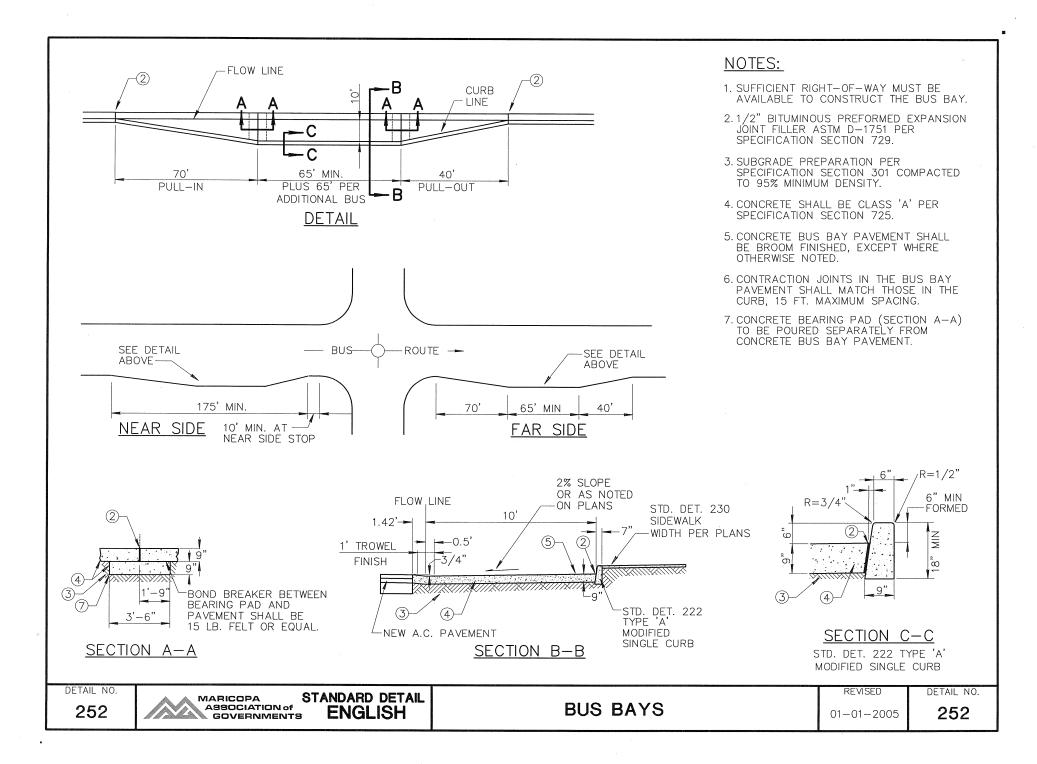
APPROVED: DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER

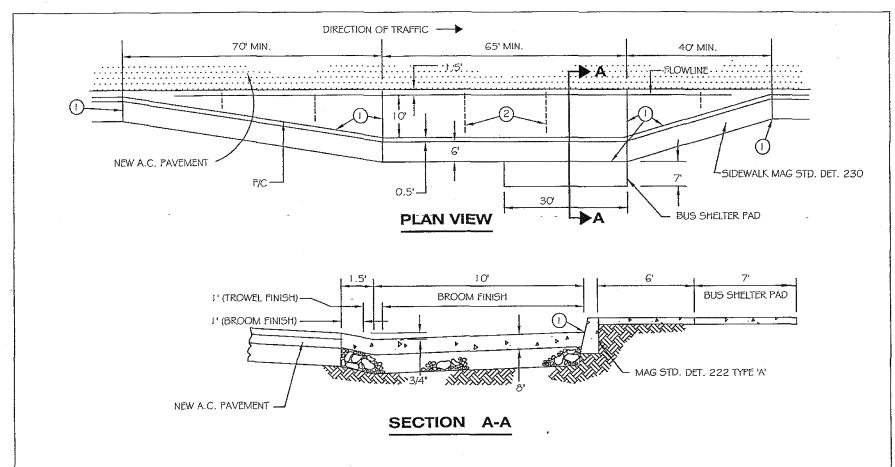
DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT

SIDEWALK SCOOP RAMP DETAIL FOR RETURN TYPE DRIVEWAY

DETAIL T-348 REVISED 2005

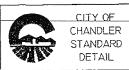




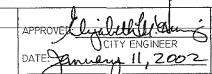
NOTES:

- 1. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER ASTM D-1751. (FULL 8" DEPTH.)
- 2. PROVIDE CONTRACTION JOINTS AT 25' MAX. SPACING.
- 3. ALL CONCRETE TO CONFORM TO MAG SPECIFICATION, SEC. 725. (CLASS 'A' FOR PAVEMENT.)
- 4. PLACE A COMBINATION CLEAR CURING COMPOUND AND WEATHER SEALER ON FINISHED SURFACE.
- 5. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG SPECIFICATION, SEC. 301.

C-230 REPLACES 118



CONCRETE BUS BAYS



C-230

NTS

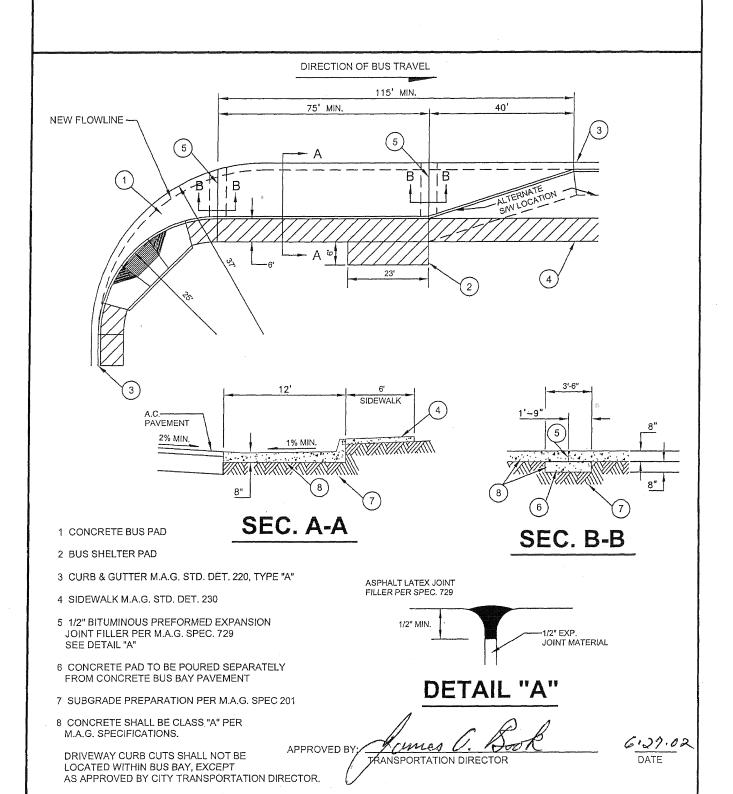
STANDARD DETAIL G-406

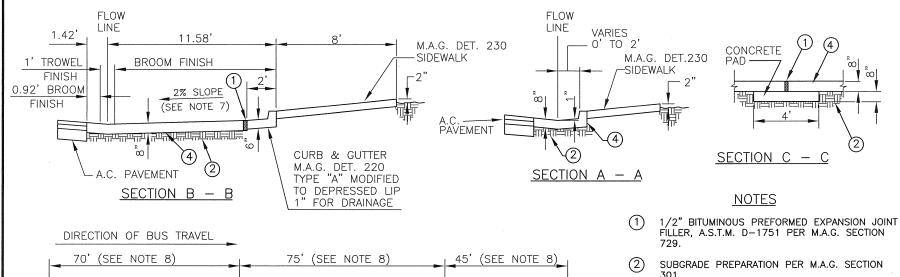
CITY OF GLENDALE TRANSPORTATION



REVISED: JUNE 2002
PREVIOUS:

BUS BAY DETAIL





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- M.A.G. DET. 230 (9)

SIDEWALK

A.C. PAVEMENT

(6)

FLOW LINE

CURB & GUTTER

M.A.G. DET. 220

TYPE "A"

(9)

PLAN VIEW

- 301.
- CONTRACTION JOINTS IN THE BUS PULLOUT PAVEMENT SHALL MATCH THOSE IN THE CURB.
- CONCRETE SHALL BE CLASS "A" PER M.A.G. SECTION 725.
- BUS SHELTER PAD AND SHELTER PER CITY OF MESA DETAILS M-45.2 THROUGH M-45.7 IF REQUIRED BY PLANS.
- (6) PAVEMENT TRANSITION.(SEE SECTION A-A)
- CROSS SLOPE SHALL BE 2% UNLESS OTHERWISE NOTED ON PLANS.
- BUS PULLOUT DIMENSIONS MAY BE REVISED UPON WRITTEN APPROVAL OF THE CITY.
 - WHEEL CHAIR PAD PER CITY OF MESA DETAIL M-45.2 (CONSTRUCT PER M.A.G. DETAIL 230).

PEORIA DETAIL 252-1 BUS BAY DETAIL

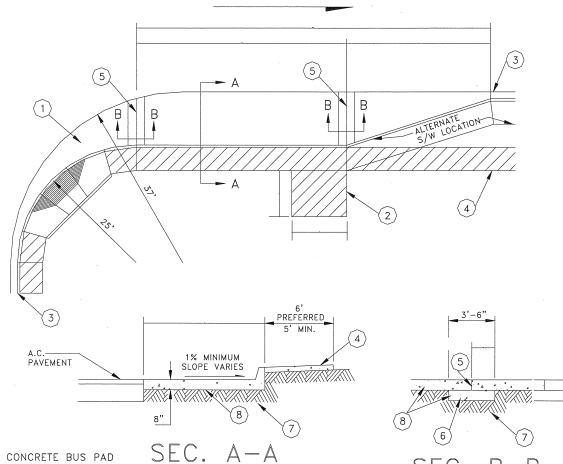


APPROVALS:

CITY ENGINEER

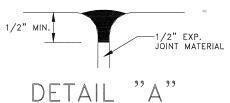
DATE

DIRECTION OF BUS TRAVEL



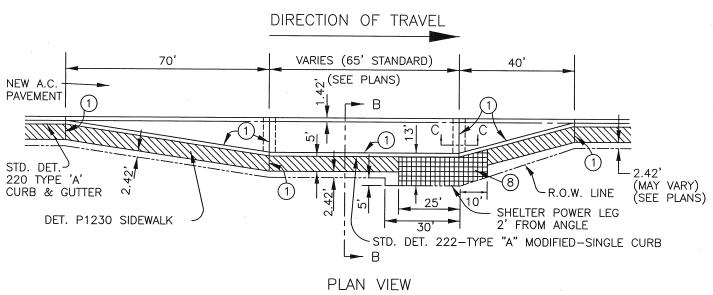
- CONCRETE BUS PAD
- BUS SHELTER PAD CURB & GUTTER MAG. STD. DET. 220, TYPE "A"
- SIDEWALK MAG. STD. DET. 230
- 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER PER MAG. SPEC. 729 SEE DETAIL "A"
- CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT
- SUBGRADE PREPARATION PER SPECIFICATIONS
- CONCRETE SHALL BE CLASS "A" PER MAG. SPECIFICATIONS.

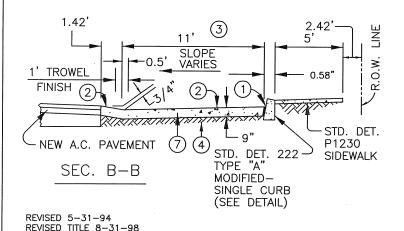
DRIVEWAY CURB CUTS SHALL NOT BE LOCATED WITHIN BUS BAY, EXCEPT AS APPROVED BY CITY TRAFFIC ENGINEER. ASPHALT LATEX JOINT FILLER PER SPEC. 729

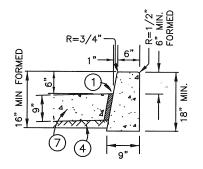


SEC.

B-B

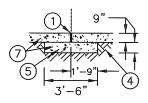






STD. DET. 222-TYPE "A" MOD. SINGLE CURB

- 1/2" BITUMINUS PREFORMED EXPANSION JOINT FILLER. A.S.T.M. D-1751
- CONCRETE BUS BAY PAVEMENT SHALL BE BROOM FINISHED, EXCEPT WHERE OTHERWISE NOTED.
- MAY BE REDUCED TO 10' MINIMUM IF APPROVED BY CITY.
- SUBGRADE PREPARATION PER SPECIFICATIONS.
- CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT. (SEE SECTION C-C)
- CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
- CONCRETE SHALL BE CLASS "A" PER M.A.G. SPECS. OR CLASS "S", f'c = 3000psi PER A.D.O.T.SPECS.
- BUS SHELTER PAD SEE DETAIL P1261
- DRIVEWAYS SHALL NOT BE LOCATED WITHIN THE SHELTER PAD AREA.
- (10) CAN BE USED AT INTERSECTIONS WITH TOTAL ROADWAY WIDTHS OF 74' OR LARGER.



SEC. C-C

DETAIL NO. P1256-



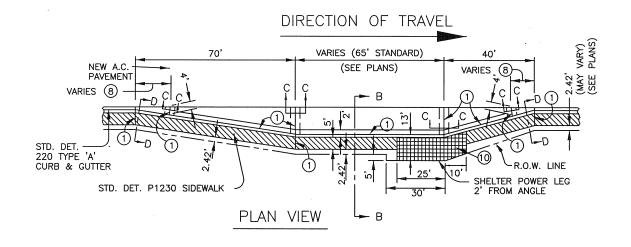
City of Phoenix STANDARD DETAIL

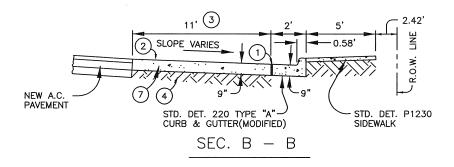
BUS BAY (TYPE 1)

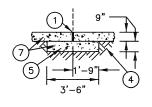
APPROVED mano Saddamando CITY ENGINEER

DETAIL NO.

08-08-03 P1256-DATE

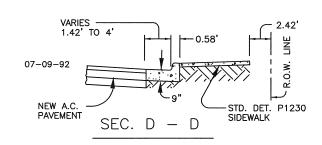




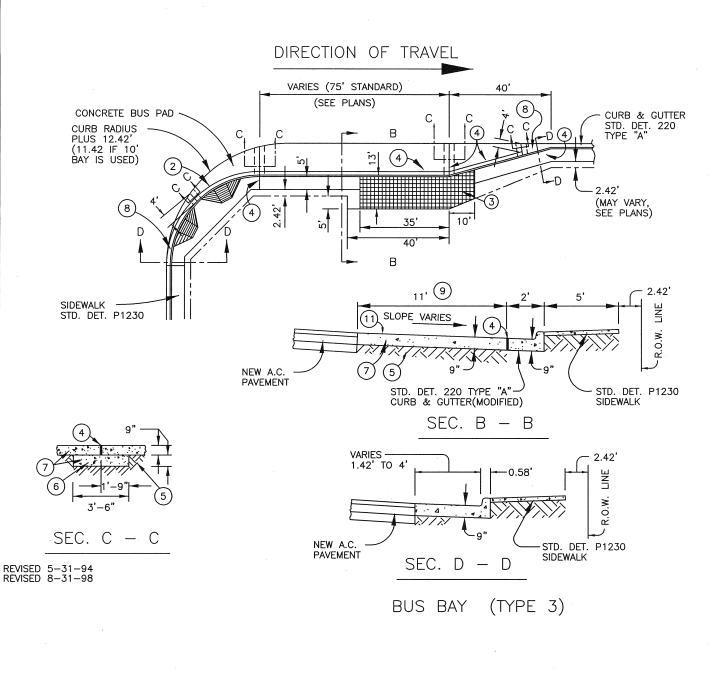


SEC. C - C

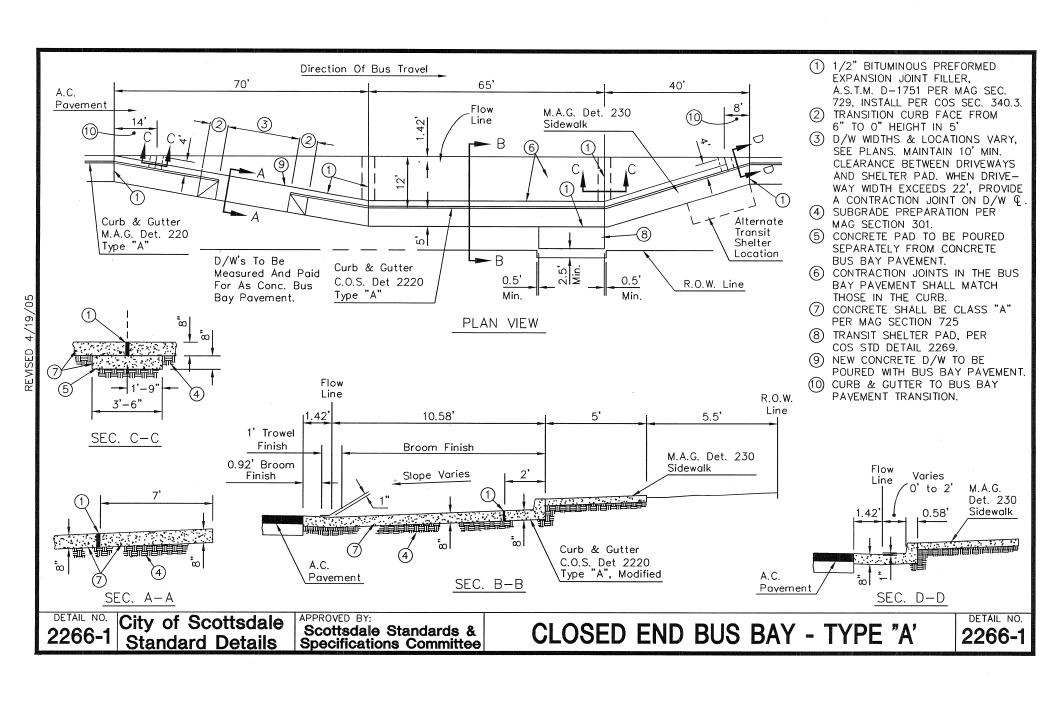
REVISED 3-01-92 REVISED TITLE 8-31-98

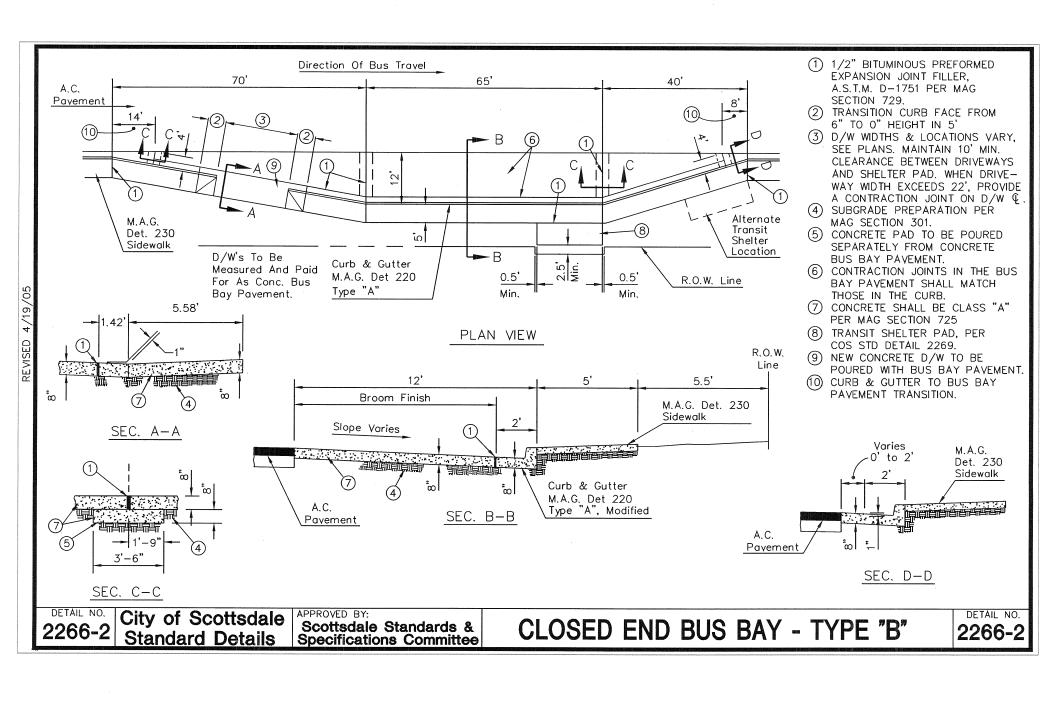


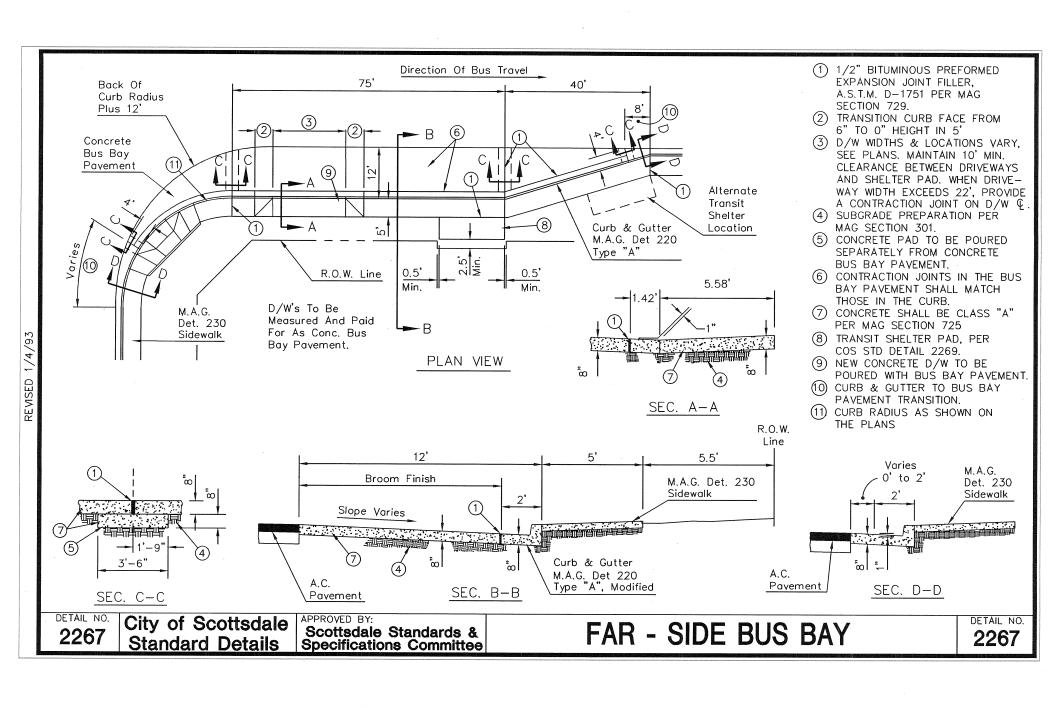
- 1/2" BITUMINUS PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751
- CONCRETE BUS BAY PAVEMENT SHALL BE BROOM FINISHED.
- MAY BE REDUCED TO 10' MINIMUM IF APPROVED BY CITY.
- SUBGRADE PREPARATION PER SPECIFICATIONS.
- CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT. (SEE SECTION C-C)
- CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
- CONCRETE SHALL BE CLASS "A" PER M.A.G. SPECS. OR CLASS "S", f'c = 3000psi PER A.D.O.T. SPECS.
- CURB & GUTTER-TO-BUS BAY PAVEMENT-TRANSITION(LENGTH VARIES)
- DRIVEWAYS SHALL NOT BE LOCATED WITHIN THE SHELTER PAD AREA.
- BUS SHELTER PAD, SEE DETAIL P1261
- CAN BE USED AT INTERSECTIONS WITH TOTAL ROADWAY WIDTHS OF 74' OR LARGER.

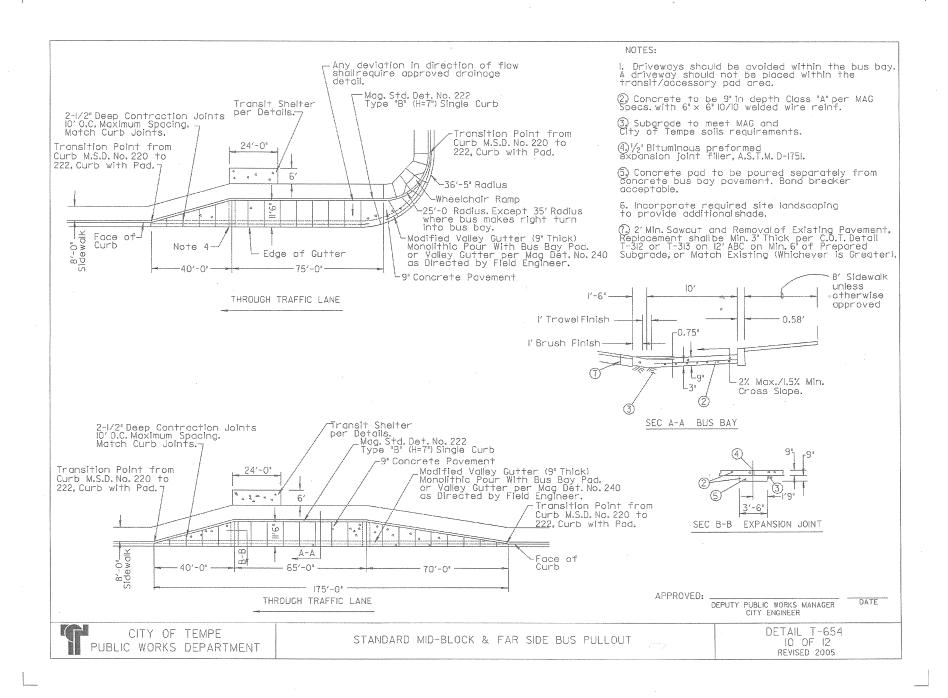


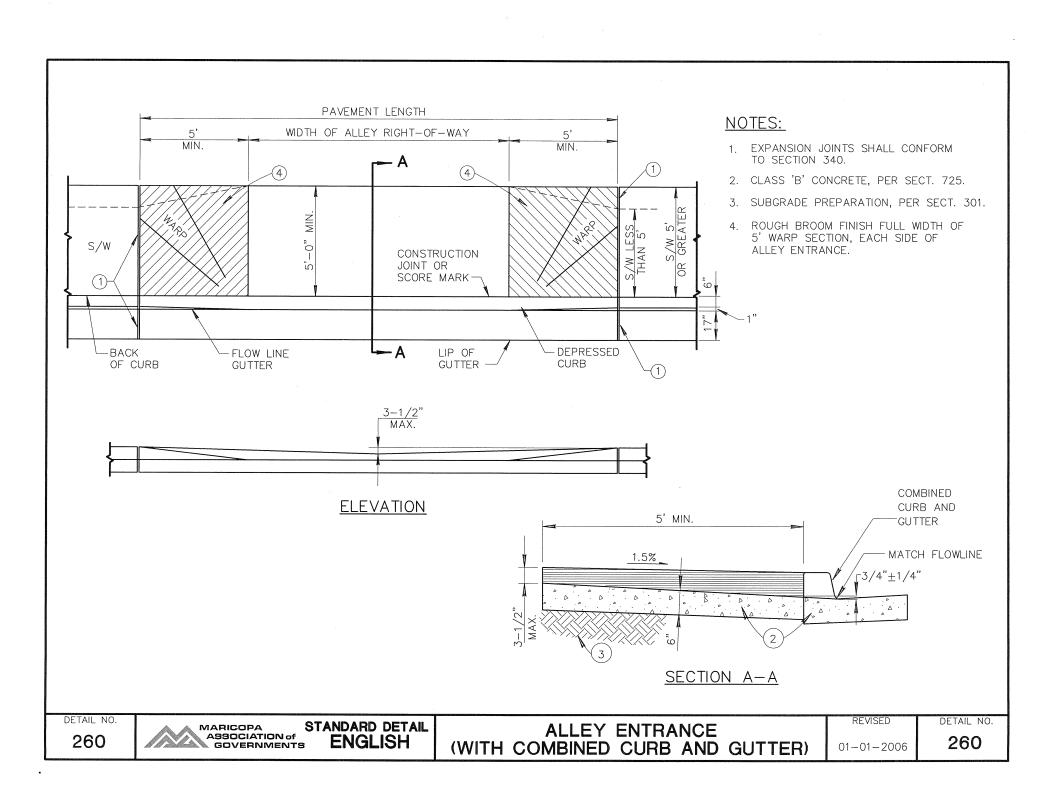
- DRIVEWAYS SHALL NOT BE LOCATED WITHIN THE SHELTER PAD AREA.
- CURB RADIUS AS SHOWN ON THE PLANS.
- BUS SHELTER PAD. SEE DETAIL P1261
- (4) 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751
- SUBGRADE PREPARATION PER SPECIFICATIONS.
- CONCRETE PAD TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT. (SEE SECTION C-C)
- CONCRETE SHALL BE CLASS "A" PER M.A.G. SPECS. OR CLASS "S f'c=3000psi PER A.D.O.T. SPECS.
- CURB AND GUTTER-TO-BUS BAY PAVEMENT-TRANSITION (LENGTH VARIES)
- MAY BE REDUCED TO 10' MINIMU IF APPROVED BY CITY.
- CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB.
- CONCRETE BUS BAY PAVEMENT SHALL BE BROOM FINISHED.
- DO NOT USE AT INTERSECTIONS WITH A TOTAL WIDTH OF 74' OR LARGER.

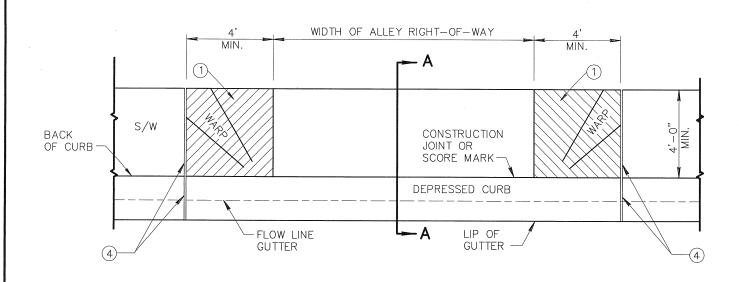


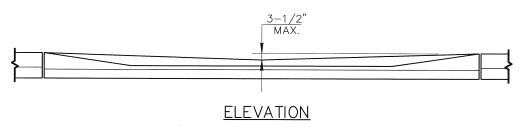






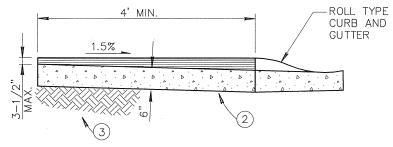






NOTES:

- ROUGH BROOM FINISH FULL WIDTH OF 4' WARP SECTION, EACH SIDE OF ALLEY ENTRANCE.
- 2. CLASS 'B' CONCRETE CONSTRUCTION PER SECT. 725.
- 3. SUBGRADE PREPARATION, PER SECT. 301.
- 4. EXPANSION JOINTS SHALL CONFORM TO SECT. 340.



SECTION A-A

DETAIL NO.

261

MARICOPA ASSOCIATION of GOVERNMENTS

STANDARD DETAIL

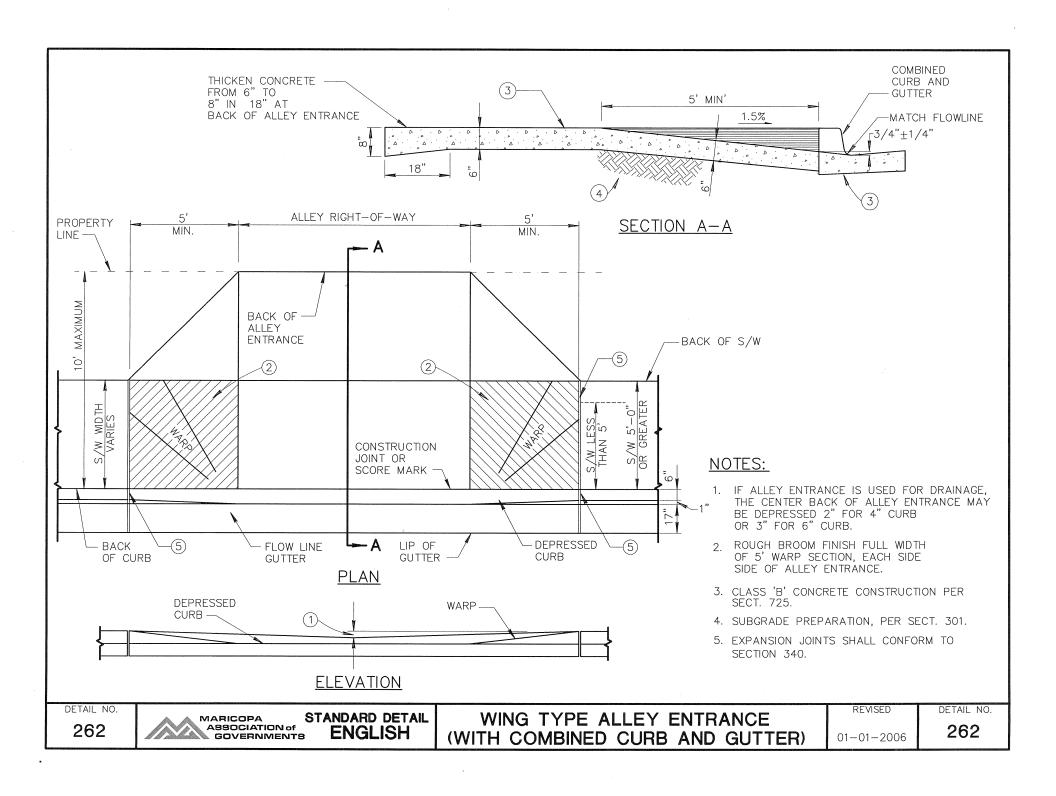
ENGLISH

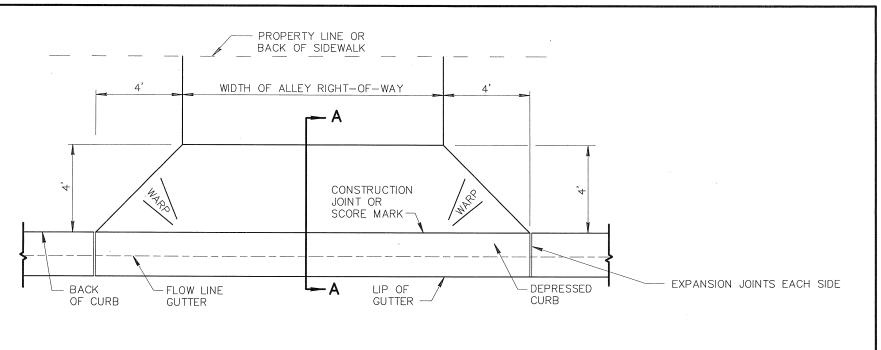
ALLEY ENTRANCE
(WITH ROLL TYPE CURB AND GUTTER)

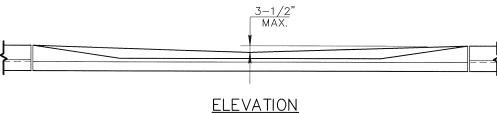
REVISED

DETAIL NO. **261**

01-01-2006

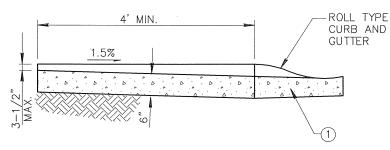






NOTES:

- 1. CLASS 'B' CONCRETE CONSTRUCTION PER SECT. 725.
- 2. EXPANSION JOINTS SHALL CONFORM TO SECT. 340.
- 3. SUBGRADE PREPARATION PER SECTION 301.



SECTION A-A

DETAIL NO.

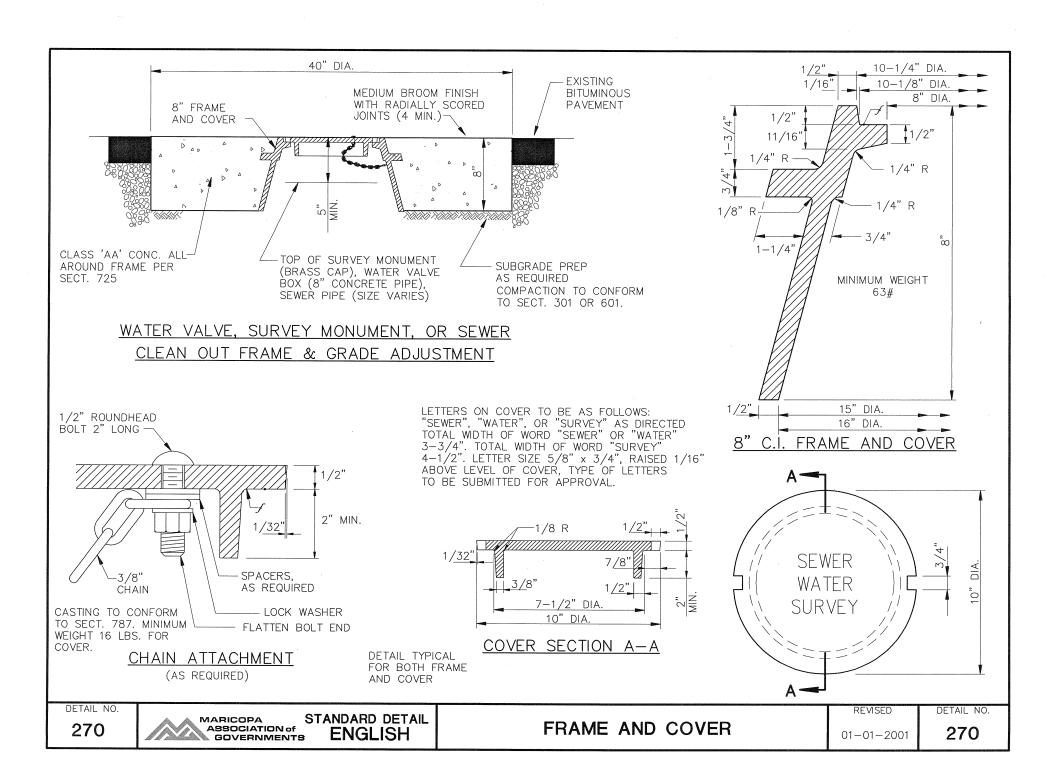
MARICOPA 263 ASSOCIATION of GOVERNMENTS

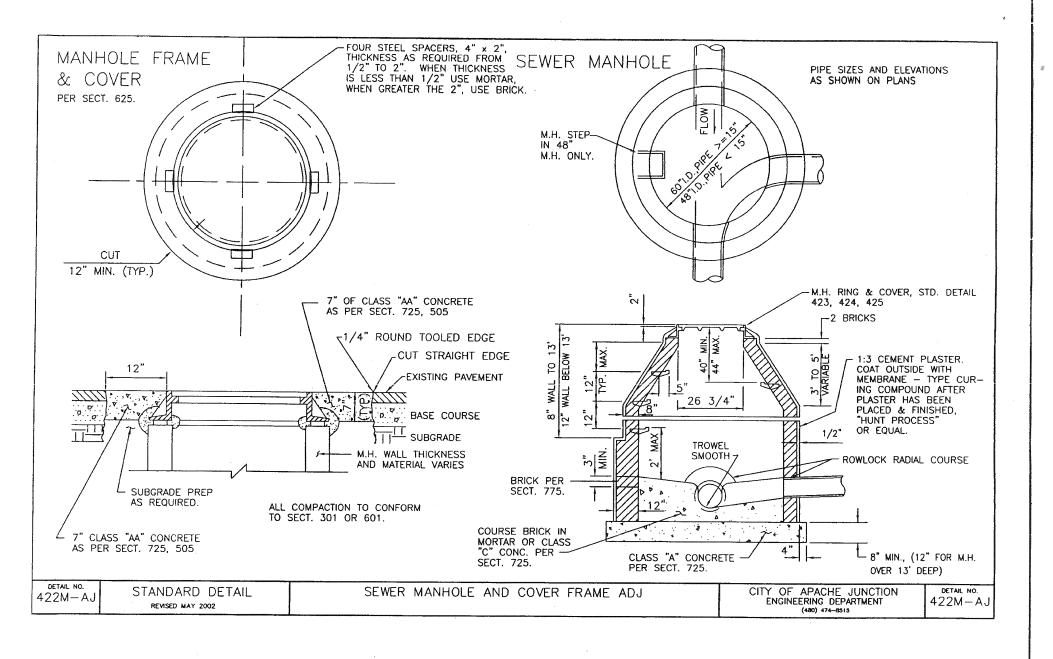
STANDARD DETAIL

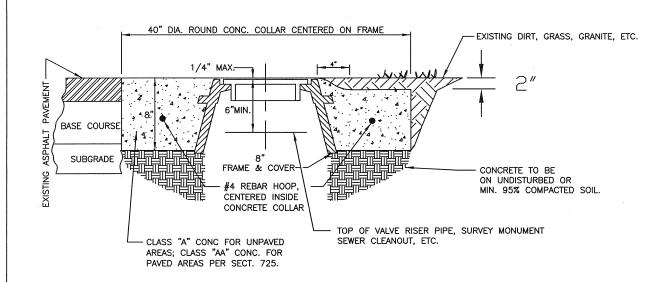
ENGLISH

WING TYPE ALLEY ENTRANCE (WITH ROLL TYPE CURB AND GUTTER) REVISED

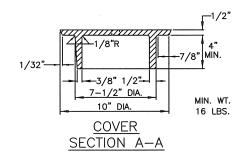
DETAIL NO.

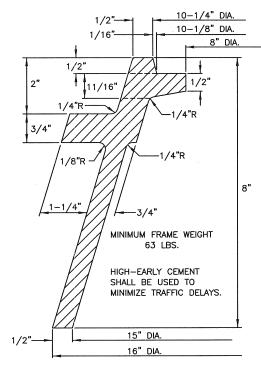




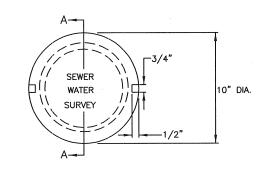


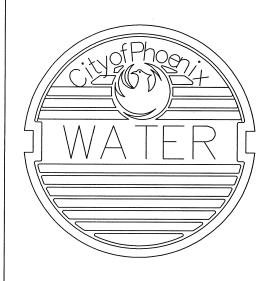
- 1) IN PAVED MAJOR ARTERIAL STREETS, CONCRETE COLLARS SHALL BE SCORED RADIALLY AT QUARTER-CIRCLE POINTS AND SCORES SHALL BE 1/4" WIDE BY 1/2" DEEP. CONCRETE SURFACE SHALL BE ROUGH BROOM FINISHED. NO TRAFFIC SHALL BE ALLOWED ON COLLARS UNTIL CONCRETE REACHES MINIMUM 2500 PSI ON ALL STREETS.
- 2) LETTERS ON COVER TO BE AS FOLLOWS:
 "SEWER", "WATER", OR "SURVEY" AS DIRECTED.
 TOTAL WIDTH OF WORD "SEWER" OR "WATER"
 3-3/4". TOTAL WIDTH OF WORD "SURVEY"
 4-1/2". LETTER SIZE 5/8" X 3/4", RAISED
 1/16" ABOVE LEVEL OF COVER. TYPE OF
 LETTERS TO BE SUBMITTED FOR APPROVAL.
 CASTINGS TO CONFORM TO SECT. 787.
- 3) COMPACTION TO CONFORM TO SECT. 301 OR 601.

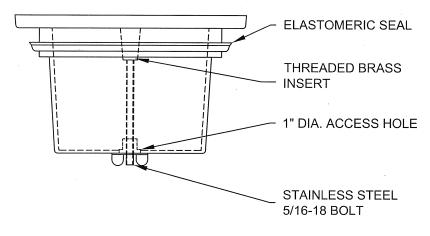


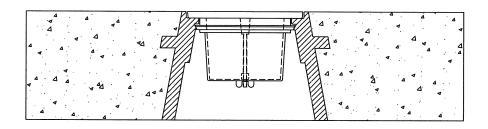


8" C.I. FRAME AND COVER









- 1. BODY OF THE SECURE VALVE BOX LID SHALL BE MOLDED USING AN ABS/POLYCARBONATE ALLOY, AND DISPLAY THE CITY OF PHOENIX LOGO, THE WORDS "CITY OF PHOENIX", AND "WATER".
- 2. WITH AN ELASTOMERIC SEAL WHICH WHEN PRESSED INTO PLACE BENEATH THE LID-SEAT, EXPANDS TO A DIAMETER GREATER THAN THE OPENING THROUGH WHICH IT WAS PASSED, BUT CAPABLE OF FOLDING BACK DURING LID EXTRACTION.
- 3. A HOLLOW ENCLOSURE MOLDED USING AN ABS/POLYCARBONATE ALLOY. CAPABLE OF BEING FILLED WITH A GRANULAR MATERIAL, FOR ADDITIONAL WEIGHT IF DESIRED, MUST BE AFFIXED BENEATH THE SURFACE PLATE OF LID, WITH SERIES 3400 STAINLESS STEEL 5/16"-18 BOLT INSERTED INTO THREADED BRASS INSERT MOLDED IN LID.
- 4. HOLLOW ENCLOSURE TO EXTEND A MINIMUM OF 4" BENEATH THE LID-SEAT, AND BE SECURED BY A STAINLESS STEEL BOLT EXTENDING THROUGH THE ENCLOSURE INTO THREADED BRASS INSERT IN LID.
- 5. HOLLOW ENCLOSURE MUST HAVE AN ACCESSIBLE OPENING OF AT LEAST 1" DIAMETER FOR FILLING, WHEN REQUIRED.
- 6. SECURE VALVE BOX LID TO BE AS MANUFACTURED BY SW SERVICES OR EQUAL.
- 7. SEE DETAIL P1391 FOR ADDITIONAL INFORMATION ON VALVE BOX INSTALLATIONS.

DETAIL NO. P1270-1



SECURE VALVE BOX LID

APPROVED

Mans Sadamando

CITY ENGINEER

DETAIL NO.

P1270-1

6-27-01

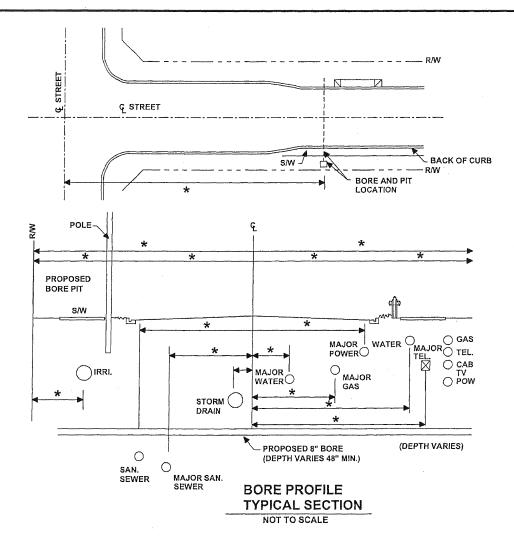
DATE

STANDARD DETAIL G-320

CITY OF GLENDALE **ENGINEERING**



ENGINEERED UTILITY BORE

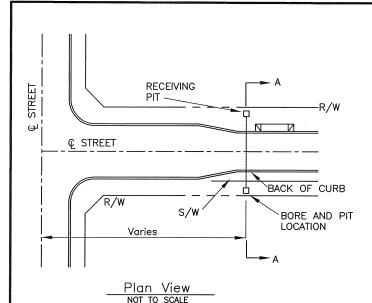


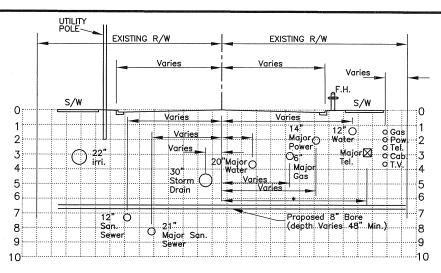
NOTES:

- 1. * PROVIDED PROPOSED LOCATION OF BORE AND ALL UTILITIES WITH VERTICAL & HORIZONTAL DIMENSIONS, AS WELL AS DIMENSIONS OF FACILITIES TO BE CROSSED.
- 2. 12" BY 12" MAX. SIZE POTHOLES ALLOWED TO VERIFY UNKNOWN UTILITY LOCATION AND TO MONITOR BORES PASSING WITHIN 2' OF **EXISTING UTILITIES.**
- 3. ALL BORES TO BE SLEEVED IN SCHEDULE 40 PVC OR BETTER.
- 4. BORE PIT OVER 20' DEEP REQUIRES ENGINEERED SHORING.
- 5. BACKFILL REQUIREMENTS OF PIT SHALL BE PER MAG SECTION 600.
- 6. JURISDICTION SHALL BE NOTIFIED IF OBSTRUCTIONS ARE ENCOUNTERED.
- 7. GUIDED BORE REQUIRED IF LENGTH IS MORE THAN 45'.
- 8. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER OF ANY DAMAGED FACILITY FOR IT'S REPAIR OR REPLACEMENT. COST OF SUCH REPAIRS SHALL BE IN COMPLIANCE WITH MAG OR SPECIAL AGREEMENTS.
- 9. REPLACE OR REPAIR ANY LANDSCAPING/SPRINKLER DAMAGED DURING THE COURSE OF THE WORK. PER MAG 107.9.
- 10. PERMISSION REQUIRED FROM THE CITY PRIOR TO REMOVING OR TRIMMING ANY LANDSCAPING.
- 11. 12" MIN. CLEARANCE SHALL BE PROVIDED TO ALL EXISTING UTILITIES.
 12. A TEMPORARY CONSTRUCTION EASEMENT MAY BE REQUIRED FOR BOR
- PIT LOCATION IF NOT ENOUGH ROOM IN EXISTING RIGHT-OF-WAY.

APPROVED BY: CITY ENGINEER DATE

REVISED: JUNE 2002





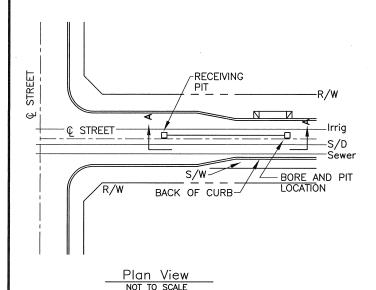
Bore Profile
Typical Section A-A

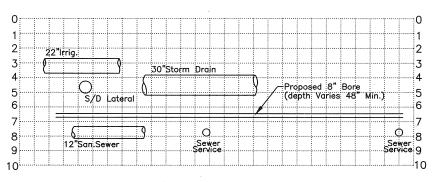
NOT TO SCALE

NOTES:

- Utility bores shall be performed in accordance with the Policy Statement for Utility Installation
 Using Boring Methods Within Public Right—of—Way. Prior to any work, the utility company shall
 submit plans for review and approval by the City.
- 2. Guided bores are required when the bore exceeds 45 feet in length.
- A PVC conduit, schedule 40 or better, shall be inserted in the bore to carry the utility company's cables or product.
- 4. A 1-foot minimum clearance shall be maintained between the bore and existing utilities unless otherwise approved by Engineering Inspector.
- 5. When the bore passes within 2 feet of any existing utility, a pothole at the time of the bore will be required to monitor the bore.
- 6. The City Inspector shall be notified if obstructions are encountered.
- 7. Potholes are required to verify all utility locations prior to the bore. Every reasonable effort shall be employed to expose and verify the exact location of the utility/facility. When the utility cannot be found as marked (Blue Staked), the potholeing contractor/excavator shall notify the facility owner (as noted on the Blue Stake ticket) for additional information. If no further information is available, the excavator shall extend the search for a minimum of 2 feet below, and 2 feet to either side of the proposed bore location/elevation.

- 8. When vacuum potholes are required, the maximum pavement cut shall be 12" X 12".
- The utility company or their contractor shall provide copies of all bore profiles to the Engineering Inspector prior to the bore.
- Backfill requirements for excavations (pits) outside the roadway prism shall be per M.A.G. Section 600.
- 11. Repair or replace in-kind any utility damaged during construction per M.A.G. Section 107.11 and landscape/sprinkler damage per M.A.G. Section 107.9.
- 12. The utility company/contractor shall obtain written permission from the owner to trim or remove any landscaping. When requested, a copy of the permission shall be provided to the Engineering Inspector.
- 13. Contact Blue Stake at 602-263-1100 before any potholing, excavating, or boring.
- 14. When a natural gas line is exposed, contact the affected gas utility for the inspection of gas line prior to backfilling. When backfilling, the City of Mesa requires shading material 6 inches (minimum) around the bottom, top, and sides of the pipe. Shading material adjacent to the pipe shall be select sandy type soil, free of rocks or debris and will pass through a 3/8" screen. City of Mesa (Gas): 480-644-2754 or 480-644-2262. Southwest Gas: 602-861-1999 or 602-271-4277.





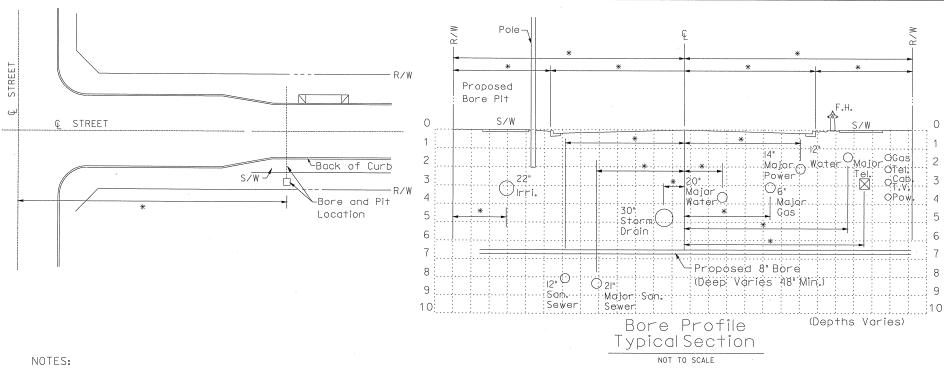
Bore Profile Typical Section A-A NOT TO SCALE

NOTES:

- 1. Utility bores shall be performed in accordance with the Policy Statement for Utility Installation Using Boring Method Within Public Right-of-Way. Prior to any work, the utility company shall submit plans for review and approval by the City.
- 2. Guided bores are required when the bore exceeds 45 feet in length.
- 3. A PVC conduit, schedule 40 or better, shall be inserted in the bore to carry the utility company's cables or product.
- 4. A 1-foot minimum clearance shall be maintained between the bore and existing utilities unless otherwise approved by Engineering Inspector.
- 5. When the bore passes within 2 feet of any existing utility, a pothole at the time of the bore will be required to monitor the bore.
- 6. The City Inspector shall be notified if obstructions are encountered.
- 7. Potholes are required to verify all utility locations prior to the bore. Every reasonable effort shall be employed to expose and verify the exact location of the utility/facility. When the utility cannot be found as marked (Blue Staked), the potholeing contractor/excavator shall notify the facility owner (as noted on the Blue Stake ticket) for additional information. If no further information is available, the excavator shall extend the search for a minimum of 2 feet below, and 2 feet to either side of the proposed bore location/elevation.

- 8. When vacuum potholes are required, the maximum pavement cut shall be 12" X 12".
- 9. The utility company or their contractor shall provide copies of all bore profiles to the Engineering Inspector prior to the bore.
- 10. Backfill requirements for excavations (pits) outside the roadway prism shall be per M.A.G.
- 11. Repair or replace in-kind any utility damaged during construction per M.A.G. Section 107.11 and landscape/sprinkler damage per M.A.G. Section 107.9.
- 12. The utility company/contractor shall obtain written permission from the owner to trim or remove any landscaping. When requested, a copy of the permission shall be provided to the Engineering Inspector.
- 13. Contact Blue Stake at 602-263-1100 before any potholing, excavating, or boring.
- When a natural gas line is exposed, contact the affected gas utility for the inspection of gas line prior to backfilling. When backfilling, the City of Mesa requires shading material 6 inches (minimum) around the bottom, top, and sides of the pipe. Shading material adjacent to the pipe shall be select sandy type soil, free of rocks or debris and will pass through a 3/8" screen. City of Mesa (Gas): 480-644-2754 or 480-644-2262.

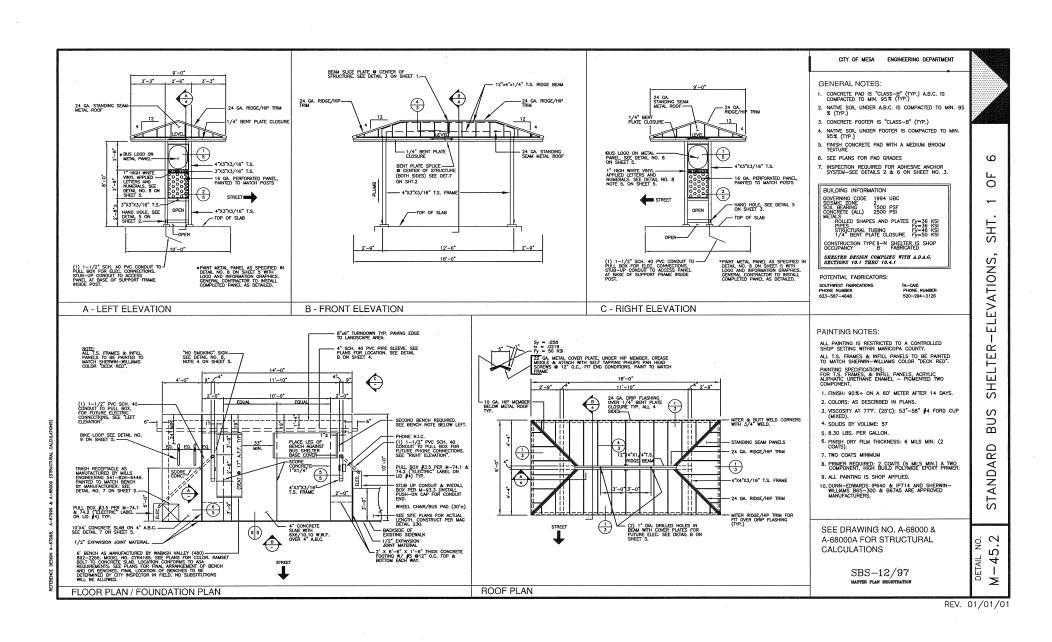
Southwest Gas: 602-861-1999 or 602-271-4277.

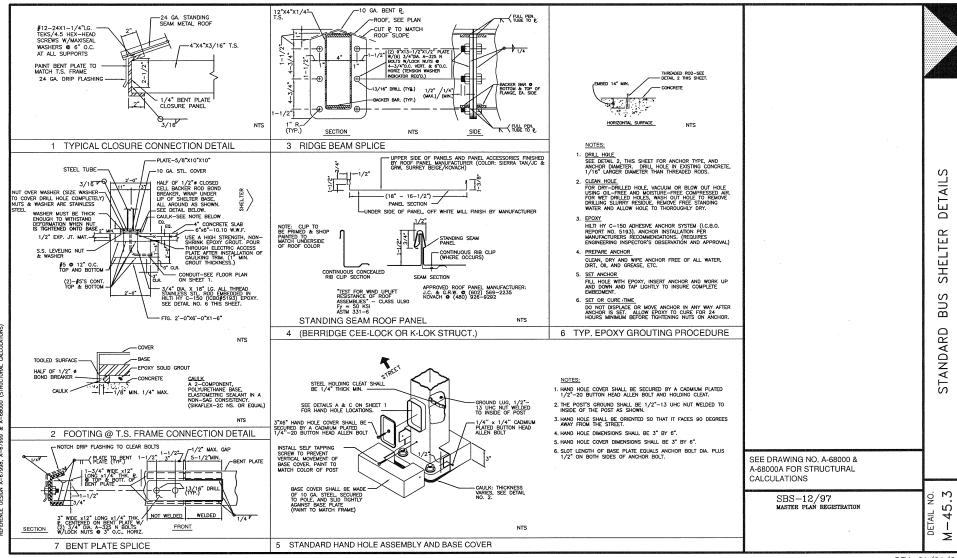


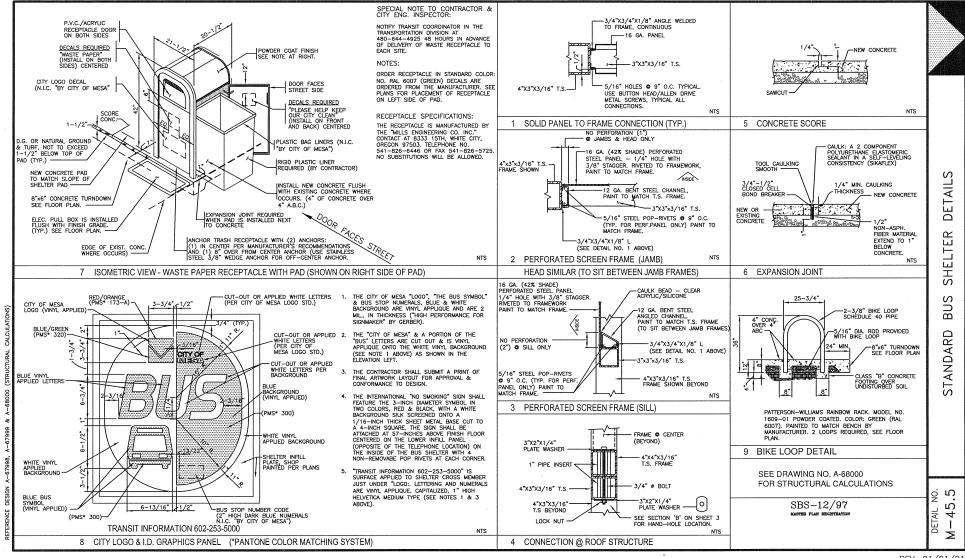
- I. * Provide Proposed Location of Bore and All Utilities With Vertical & Horizontal Dimensions, as Well as Dimensions of Facilities To Be Crossed.
- 2.12" by 12" Max. Size Potholes Allowed to Verify Unknown Utility Location and To Monitor Bores Passing Within 2' of Existing Utilities.
- 3. All Bores To Be Sleeved in Schedule 40 PVC or Better.
- 4. Bore Pit Over 20' Deep Requires Engineered Shoring.
- 5. Backfill Requirements of Pit Shall Be Per MAG Section 600
- 6. Jurisdiction Shall Be Notified If Obstructions are Encountered.
- 7. Guided Bore Required If Length is More than 45'.
- 8. The Contractor Shall Make Arrangements with the Owner of Any Damaged Facility For it's Repair or Replacement. Cost of Such Repairs Shall be in Compliance with M.A.G. or Special Agreements.

- 9. Replace or Repair Any Landscaping/Sprinkler Damaged During the course of the Work. Per MAG 107.9.
- 10. Permission Required from the City Prior to Removing or Trimming Any Landscaping.
- II. 24" Min. Clearance shall be Provided Between C.D.T. and All Existing Utilities.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE APPROVED: DEPUTY PUBLIC WORKS MANAGER DATE CITY ENGINEER





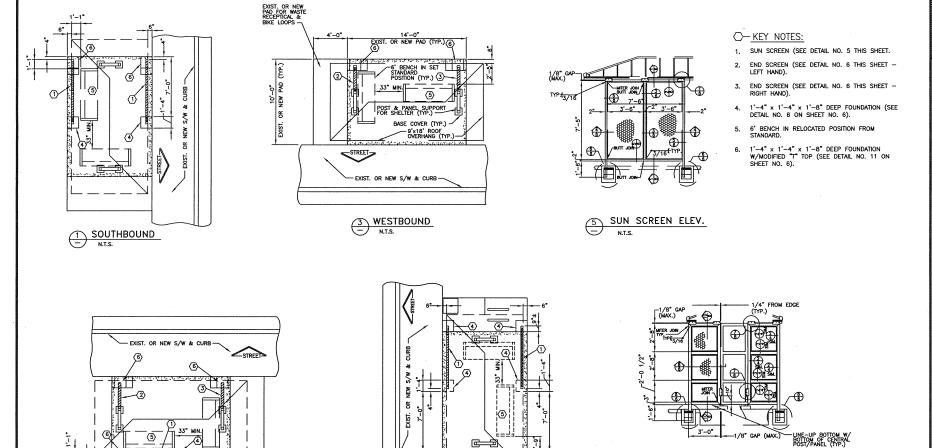




REV. 02/15/05

6 SUN SCREEN ELEV.

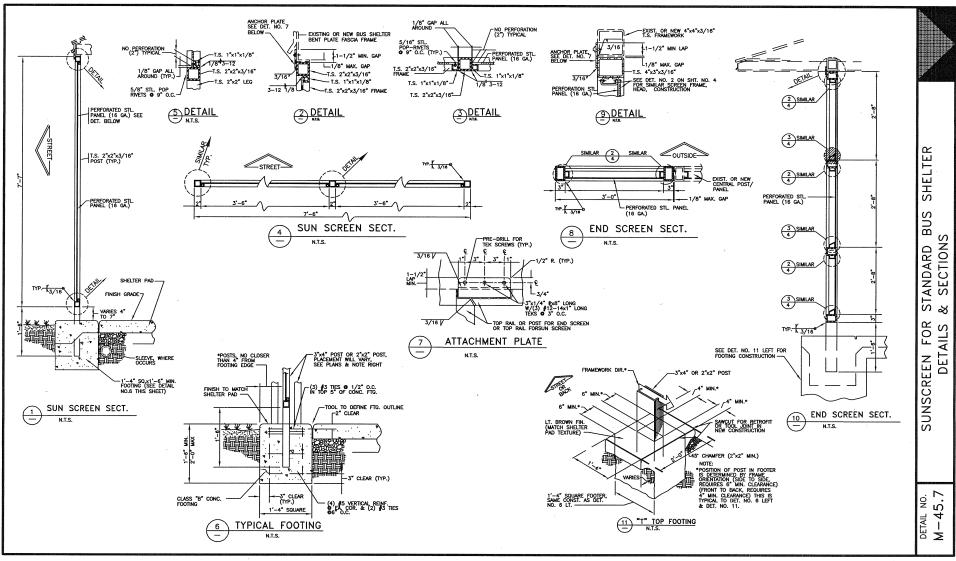
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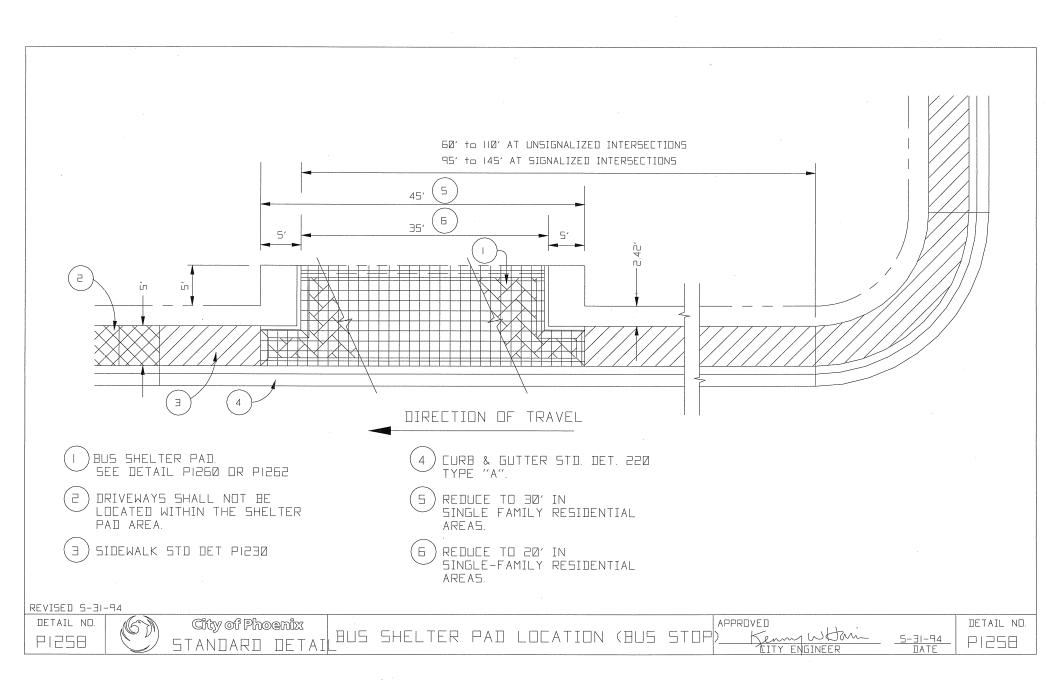


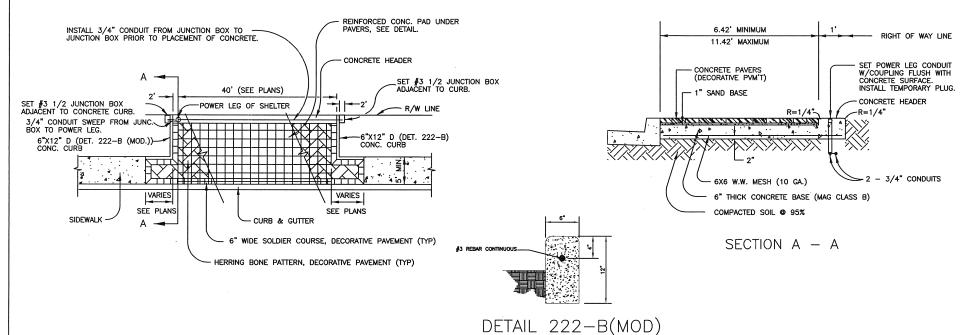
NORTHBOUND N.T.S.

6

1'-4" 2 EASTBOUND N.T.S.

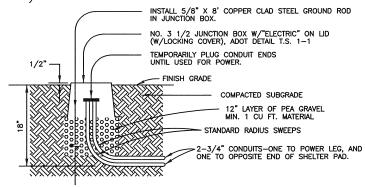






GENERAL NOTES:

- 1. ALL CONDUIT SHALL BE P.V.C. SCHEDULE 40, U.L. LISTED.
- ACTUAL PLAN LAYOUT MAY VARY. ALL OTHER DETAIL INFORMATION REMAINS THE SAME. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS OF BUS SHELTER PAD CONCRETE BASE AND DECORATIVE PAVEMENT TREATMENT.
- 3. ANY DECORATIVE PAVEMENT TREATMENT OUTSIDE THE AREA OF THE BUS SHELTER PAD CONCRETE BASE SHALL BE CONSTRUCTED ON A 1-INCH SAND BASE OVER 4-INCHES CEMENT-ENRICHED AGGREGATE BASE SLURRY (1 SACK TYPE II PORTLAND CEMENT PER CUBIC YARD OF AGGREGATE BASE COURSE MATERIAL) OVER 95% COMPACTED SUBGRADE SOIL.
- 4. ANY SHELTER OR BUS STOP FURNITURE PLACEMENT SHALL BE LOCATED TO PROVIDE A MIN. 5 ft. WIDE CLEAR SIDEWALK.
- 5. ALL COSTS ASSOCIATED WITH ELECTRICAL AND RELATED ITEMS SHOWN ON THESE DETAILS (CONDUITS, JUNCTION BOXES, GROUND ROD, ETC.) SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM FOR CONCRETE BUS SHELTER PAD.
- 6. BUS BAY PAVEMENT, DECORATIVE PAVEMENT (INCLUDING CEMENT-ENRICHED A.B.C. SLURRY AND SANDBASE), 6"X12" DEEP CONCRETE CURB, SINGLE CURB, CURB & GUTTER, SIDEWALKS, & DRIVEWAYS ARE SEPARATE PAY ITEMS.



SLEEVE SWEEP & JUNCTION BOX DETAIL

DETAIL NO. P1260

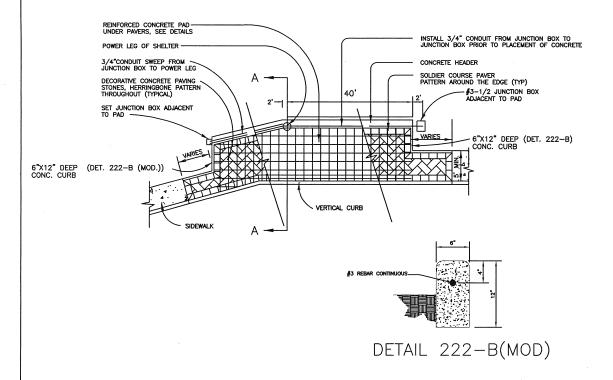


APPROVED

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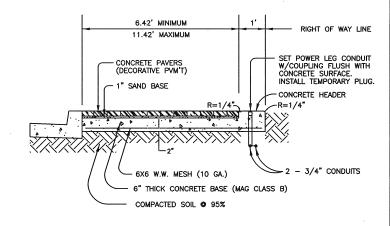
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07-19-04 DATE DETAIL NO. P1260

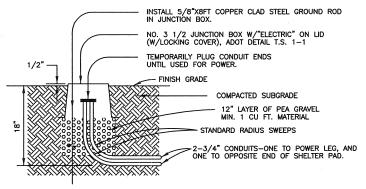


GENERAL NOTES:

- 1. ALL CONDUIT SHALL BE P.V.C. SCHEDULE 40, U.L. LISTED.
- 2. ACTUAL PLAN LAYOUT MAY VARY. ALL DETAIL INFORMATION REMAINS THE SAME. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS OF BUS SHELTER PAD CONCRETE BASE AND DECORATIVE PAVEMENT TREATMENT.
- 3. ANY DECORATIVE PAVEMENT TREATMENT OUTSIDE THE AREA OF THE BUS SHELTER PAD CONCRETE BASE SHALL BE CONSTRUCTED ON A 1-INCH SAND BASE OVER 4-INCHES CEMENT-ENRICHED AGGREGATE BASE SLURRY (1 SACK TYPE II PORTLAND CEMENT PER CUBIC YARD OF AGGREGATE BASE COURSE MATERIAL) OVER 95% COMPACTED SUBGRADE SOIL.
- 4. ANY SHELTER OR BUS STOP FURNITURE PLACEMENT SHALL BE LOCATED TO PROVIDE A MIN. 5 ft. WIDE CLEAR SIDEWALK.
- 5. ALL COSTS ASSOCIATED WITH ELECTRICAL AND RELATED ITEMS SHOWN ON THESE DETAILS (CONDUITS, JUNCTION BOXES, GROUND ROD, ETC.) SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM FOR CONCRETE BUS SHELTER PAD.
- 6. BUS BAY PAVEMENT, DECORATIVE PAVEMENT (INCLUDING CEMENT-ENRICHED A.B.C. SLURRY AND SANDBASE). 6"X12" D CONCRETE CURB. SINGLE CURB. CURB & GUTTER. SIDEWALKS. & DRIVEWAYS ARE SEPARATE PAY ITEMS.



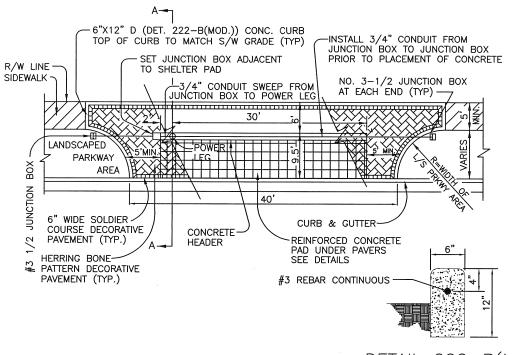
SECTION A - A



SLEEVE SWEEP & JUNCTION BOX DETAIL



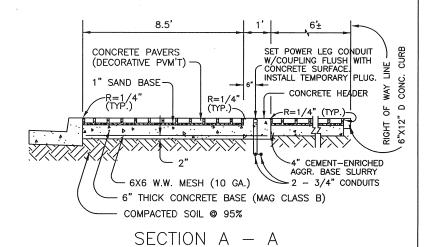
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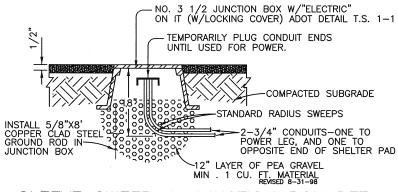


DETAIL 222-B(MOD)

GENERAL NOTES:

- 1. ALL CONDUIT SHALL BE P.V.C. SCHEDULE 40, U.L. LISTED.
- ACTUAL PLAN LAYOUT MAY VARY. ALL DETAIL INFORMATION REMAINS THE SAME. SEE PLANS
 FOR SPECIFIC LOCATIONS AND DIMENSIONS OF BUS SHELTER PAD CONCRETE BASE AND DECORATIVE
 PAVEMENT TREATMENT.
- 3. ANY DECORATIVE PAVEMENT TREATMENT OUTSIDE THE AREA OF THE BUS SHELTER PAD CONCRETE BASE SHALL BE CONSTRUCTED ON A 1-INCH SAND BASE OVER 4-INCHES CEMENT-ENRICHED AGGREGATE BASE SLURRY (1 SACK TYPE II PORTLAND CEMENT PER CUBIC YARD OF AGGREGATE BASE COURSE MATERIAL) OVER 95% COMPACTED SUBGRADE SOIL.
- ANY SHELTER OR BUS STOP FURNITURE PLACEMENT SHALL BE LOCATED TO PROVIDE A MIN. 5 ft. WIDE CLEAR SIDEWALK.
- 5. ALL COSTS ASSOCIATED WITH ELECTRICAL AND RELATED ITEMS SHOWN ON THESE DETAILS (CONDUITS, JUNCTION BOXES, GROUND ROD, ETC.) SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM FOR CONCRETE BUS SHELTER PAD.
- BUS BAY PAVEMENT, DECORATIVE PAVEMENT (INCLUDING CEMENT—ENRICHED A.B.C. SLURRY AND SANDBASE), 6"X12" D CONCRETE CURB, SINGLE CURB, CURB & GUTTER, SIDEWALKS, & DRIVEWAYS ARE SEPARATE PAY ITEMS.
- 7. SHELTER PADS AND DRIVEWAYS SHALL BE LOCATED TO PROVIDE MINIMUM INTERSECTION SIGHT DISTANCE IN ACCORDANCE WITH CURRENT AASHTO STANDARDS (CASE IIIA).





SLEEVE SWEEP & JUNCTION BOX DETAIL

DETAIL NO.

P1262

City of Phoenix STANDARD DETAIL

PARKWAY BUS SHELTER/ACCESSORY PAD

APPROVED

Mans Sudemands

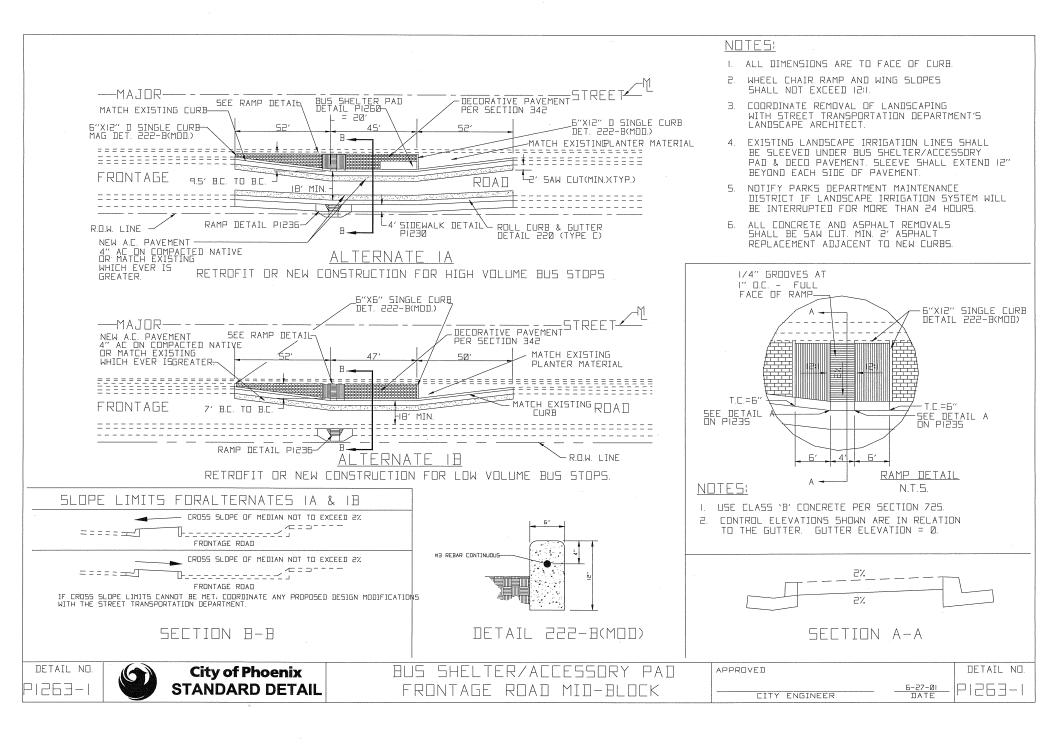
CITY ENGINEER

DETAIL NO.

07-19-04

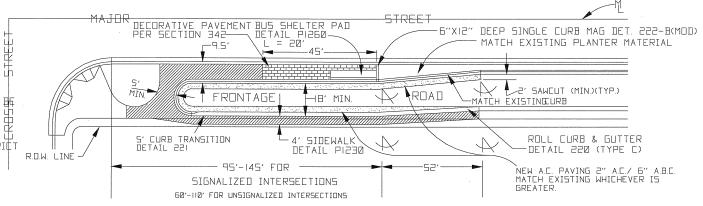
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P1262



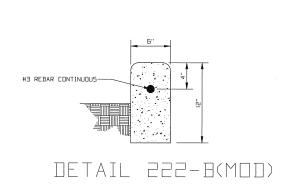
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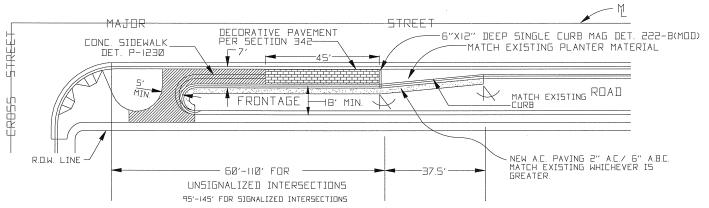
- I. ALL DIMENSIONS ARE TO FACE OF CURB.
- WHEEL CHAIR RAMP AND WING SLOPES SHALL NOT EXCEED 12:1.
- COORDINATE REMOVAL OF LANDSCAPING WITH STREET TRANSPORTATION DEPARTMENT'S LANDSCAPE ARCHITECT
- EXISTING LANDSCAPE IRRIGATION LINES SHALL SLEEVED UNDER BUS SHELTER/ACCESSORY PAD. SLEEVE SHALL EXTEND 12" BEYOND EACH SIDE DF PAD.
- 5. NOTIFY PARKS DEPARTMENT MAINTENANCE DISTRICT IF LANDSCAPE IRRIGATION SYSTEM WILL BE INTERRUPTED FOR MORE THAN 24 HOURS
- ALL CONCRETE AND ASPHALT REMOVALS SHALL BE SAW CUT. MIN. 2' ASPHALT REPLACEMENT ADJACENT TO NEW CURBS
- SEE DETAIL PI263-I FOR CROSS SLOPE LIMITS.



ALTERNATE 2A

NEW CONSTRUCTION FOR HIGH VOLUME BUS STOPS





ALTERNATE 2B

RETROFIT OR NEW CONSTRUCTION FOR LOW VOLUME BUS STOPS.

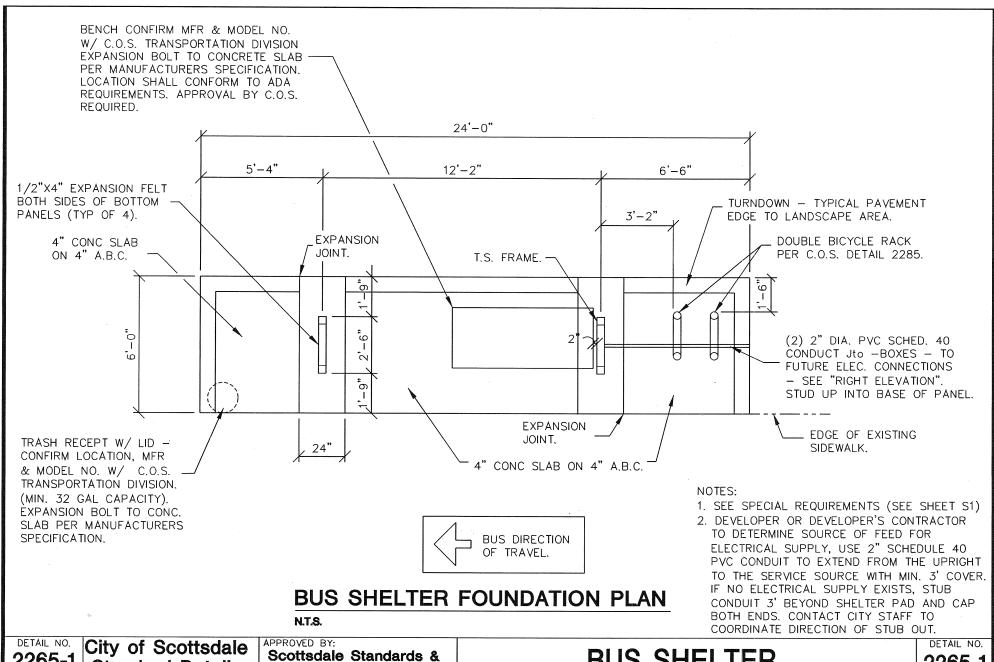
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PARKWAY BUS SHELTER/ACCESSORY PATACEDORAPHORIZATION

APPROVED

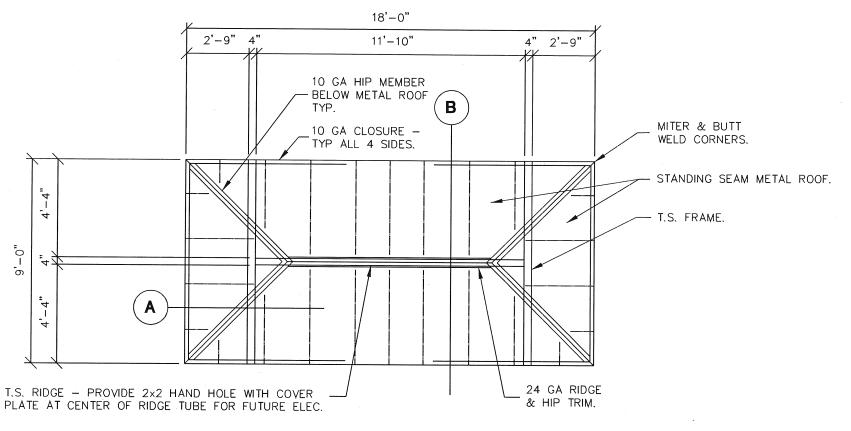
DETAIL NO. 07-03-00 P1263-2



Standard Details

Specifications Committee

BUS SHELTER



BUS SHELTER FRAMING PLAN

N.T.S.

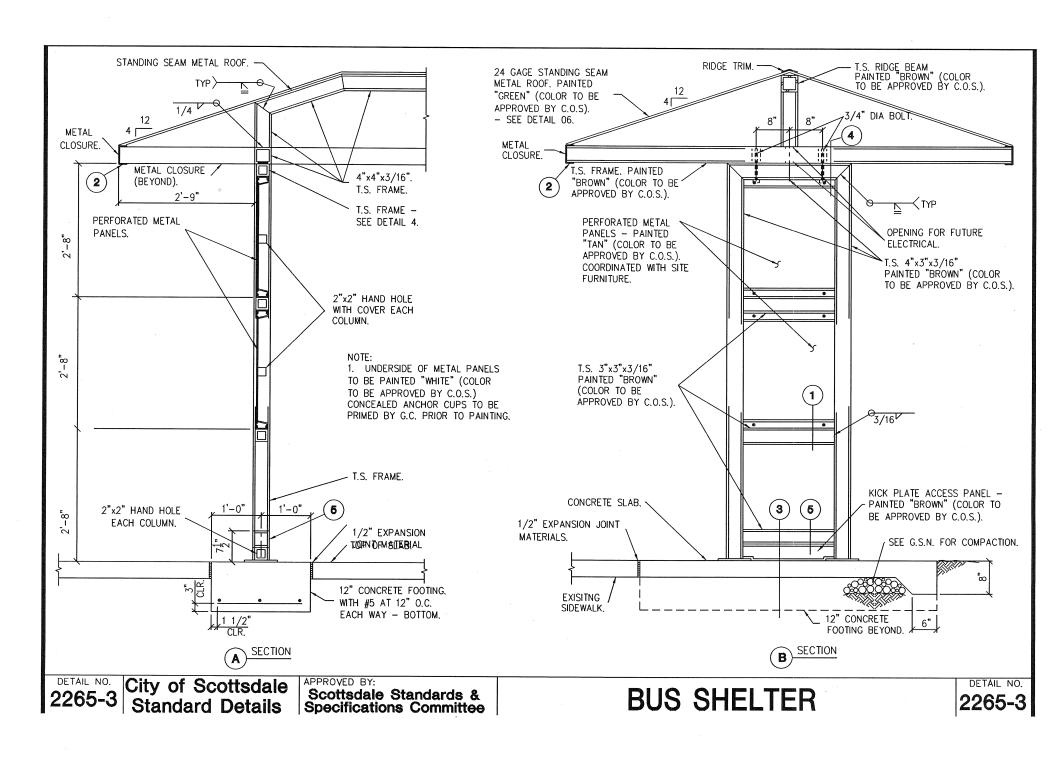
2265-2

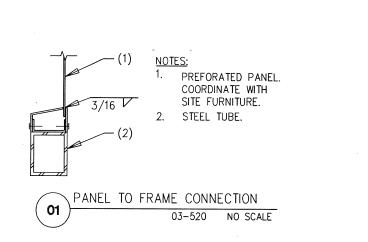
City of Scottsdale Standard Details

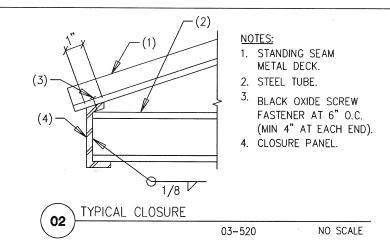
APPROVED BY:
Scottsdale Standards &
Specifications Committee

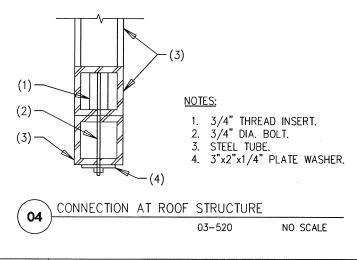
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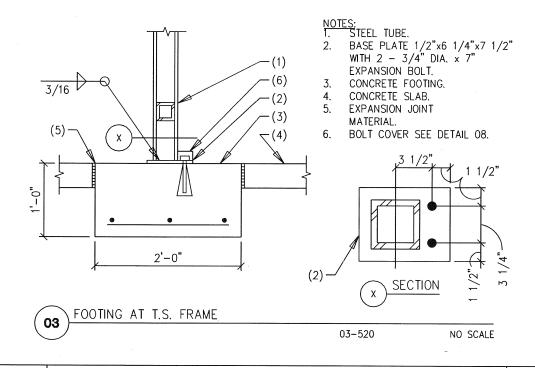
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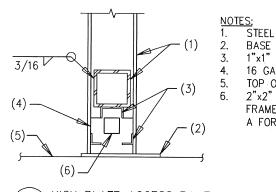


2265-4 City of Scottsdale Standard Details

APPROVED BY:
Scottsdale Standards &
Specifications Committee

BUS SHELTER

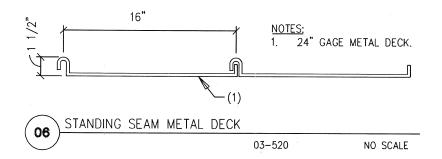
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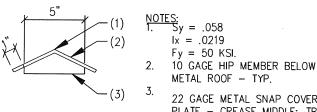


STEEL TUBE.

- BASE PLATE SEE DETAIL 03.
- 1"x1" ANGLE.
- 16 GAGE PANEL.
- TOP OF SLAB.
- 2"x2" HAND HOLE AT TUBE FRAME BEYOND - SEE SECTION A FOR LOCATIONS.

KICK PLATE ACCESS PANEL NO SCALE 03-520



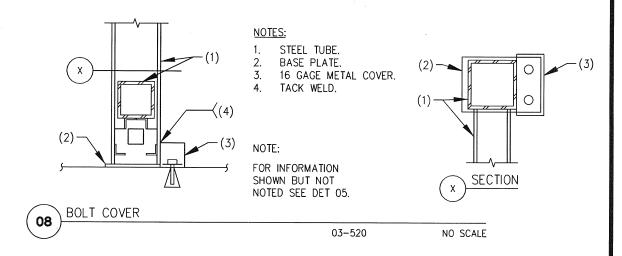


22 GAGE METAL SNAP COVER PLATE - CREASE MIDDLE: TRIM EDGES TO FIT END CONDITIONS.

METAL COVER PLATE 07

03-520

NO SCALE



City of Scottsdale Standard Details

APPROVED BY:

Scottsdale Standards & Specifications Committee

BUS SHELTER

DETAIL NO.

GENERAL STRUCTURAL NOTES

BUILDING CODE:

2003 EDITION OF THE UNIFORM BUILDING CODE, WITH CITY OF SCOTTSDALE AMENDMENTS. LOADS:

LATERAL:

WIND LOAD = 90 MPH WIND SPEED. EXPOSURE C. SEISMIC ZONE 2B (Z = 0.075)

FOUNDATIONS:

COMPACT SUB GRADE AND BASE MATERIAL TO 95% OF THE ASTM D698 MAXIMUM DRY DENSITY. CONCRETE:

MINIMUM 28 DAY STRENGTH 3,000 PSI

ALL CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI, FOR CONCRETE WITHOUT PLASTICIZER, MAXIMUM SLUMP 4 1/2" AT POINT OF PLACEMENT U.N.O. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL.

REINFORCING:

ALL REINFORCING PER CRSI SPECIFICATIONS AND HAND-BOOK. ASTM A615 (Fy = 60 KSI/GRADE 60) DEFORMED BARS FOR ALL BARS.

ALL REINFORCING SHALL BE CHAIRED TO ENSURE PRO-PER CLEARANCES. SUPPORT OF FOUNDATION REINFORC-ING MUST PROVIDE ISOLATION FROM MOISTURE CORR-OSION BY USE OF A PLASTIC OR CONCRETE CHAIR. DUCT-TAPE COVERED REINFORCING IS NOT AN ACCEPT-ABLE CHAIR.

ALL DIMENSIONS REFERENCED IN DRAWINGS AS "CLEAR' SHALL BE FROM FACE OF STRUCTURE TO EDGE OF REINFORCING, AND SHALL NOT BE LESS THAN STATED. NOR GREATER THAN "CLEAR" DIMENSION PLUS 3/8". ALL OTHERS SHALL BE PLUS OR MINUS 1/4" TYPICAL UNLESS NOTED OTHERWISE. STRUCTURAL STEEL:

ALL CONSTRUCTION PER LATEST AISC HANDBOOK. ALL TUBE STEEL SHALL BE ASTM A500(Fv=46 KSI). ALL MISCELLANEOUS STEEL UNLESS NOTED OTHERWISE SHALL BE ASTM A36 (Fy = 36 KSI).

UNLESS NOTED OTHERWISE. ALL WELDS PER LATEST EDITION OF THE AWS STANDARDS. ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VÁLID CERTIF-ICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. CER-TIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED

STRUCTURAL STEEL: CONT'D

TESTING AGENCY. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS UNLESS NOTED OTHERWISE. FOR GRADE 60 REINFORCING BARS, USE E90 SERIES. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS: THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION, SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAW-INGS SUBMITTED FOR REVIEW. STEEL DECKING:

ALL STANDING SEAM DECK SHALL CARRY A U.L. 90 UPLIFT RATING. INSTALLATION SHALL CONFORM TO STANDARDS SET FORTH IN THE ARCHITECTURAL SHEET METAL MANUAL PUBLISHED BY SMACNA.

WELDERS EXPERIENCED IN LIGHT GAGE STEEL DECK WORK SHALL PERFORM ALL WELDING. DECK WELDING MAY BE ACHIEVED WITH E60 SERIES NON LOW HY-DROGEN RODS OR E70 SERIES LOW HYDROGEN RODS.

SCREWS WHERE INDICATED SHALL BE #12-24 TRAXX PER ICBO 3056 OR APPROVED EQUIVALENT. SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCT-URAL ITEMS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

MANUFACTURER OR FABRICATOR SHALL CLOUD ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CON-TRACT DOCUMENTS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DIS-APPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOC-UMENTS, ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOC-UMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY,

SHOP DRAWINGS: CONT'D

REVIEWING IS INTENDED ONLY AS AN AID TO THE CON-TRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR, SPECIAL REQUIREMENTS

- 1. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR STANDARD SHELTER BY APPROVAL OF THE CITY OF SCOTTSDALE TRANSIT SECTION, HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE STANDARD SHELTER, SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.
- 2. STANDARD BUS STOP SIGN LOCATION, NEW OR RE-LOCATED SIGNS SHALL BE APPROVED BY THE TRAFFIC/ TRANSIT STAFF.
- 3. ADDITIONAL REQUIREMENTS MAY INCLUDE:
- A) LEANING RAIL.
- B) LED REAL TIME BUS INFORMATION SIGN.
- C) BUS ROUTE/TRAFFIC INFORMATION KIOSKS.
- D) PEDESTRIAN RAILING AROUND THE BACK OF SHELTER ADJACENT TO STEEP SLOPES OR DROP-OFFS.
- 4. CITY OF SCOTTSDALE TRANSIT BUS SHELTERS SHALL BE PROVIDED WITH A GROUNDING SYSTEM THAT MAY CONSIST OF ONE OF THE FOLLOWING METHODS:
- A) 25 FEET OF #4 STANDARD COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUN-DATIONS, THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH NOT TO EXCEED 3 FEET. THE GROUNDING CONDUCTOR WILL BE WRAPPED IN A CLOCKWISE ROTATION. ONE WRAP. AROUND ON THE THE UPRIGHT ANCHOR BOLTS. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE ANCHOR BOLT NUT ON TOP OF THE FLAT WASHER AND SECURED.
- B) A SECOND METHOD WILL CONSIST OF A 5/8"x 8'-0" GROUND ROD DRIVEN IN THE ELECTRICAL PULLBOX AD-JACENT TO THE BUS SHELTER, A GROUND ROD TERMINAL NUT (ACORN NUT) WILL BE INSTALLED ON TOP OF THE GROUND ROD SECURING A #8 AWG BARE SOLID COPPER WIRE. THE GROUND WIRE WILL BE INSTALLED FROM THE JUNCTION BOX, UNBROKEN AND UNSPLICED, TO THE BUS SHELTER UPRIGHT WHERE IT WILL BE TERMINATED. A SET -SCREW TERMINAL LUG WILL BE FASTENED TO THE STRUCTURE UPRIGHT UNDER THE BOTTOM KICKPANEL, THE AREA UNDER THE TERMINAL LUG WILL BE CLEANED OF ALL RUST, SCALE AND PAINT. THE #8 BARE BOND CONDUCTOR WILL BE TERMINATED IN THE SET-SCREW TERMINAL LUG.

BOTH GROUNDING METHODS WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE

DETAIL NO. City of Scottsdale Scottsdale Standards & Standard Details Specifications Committee

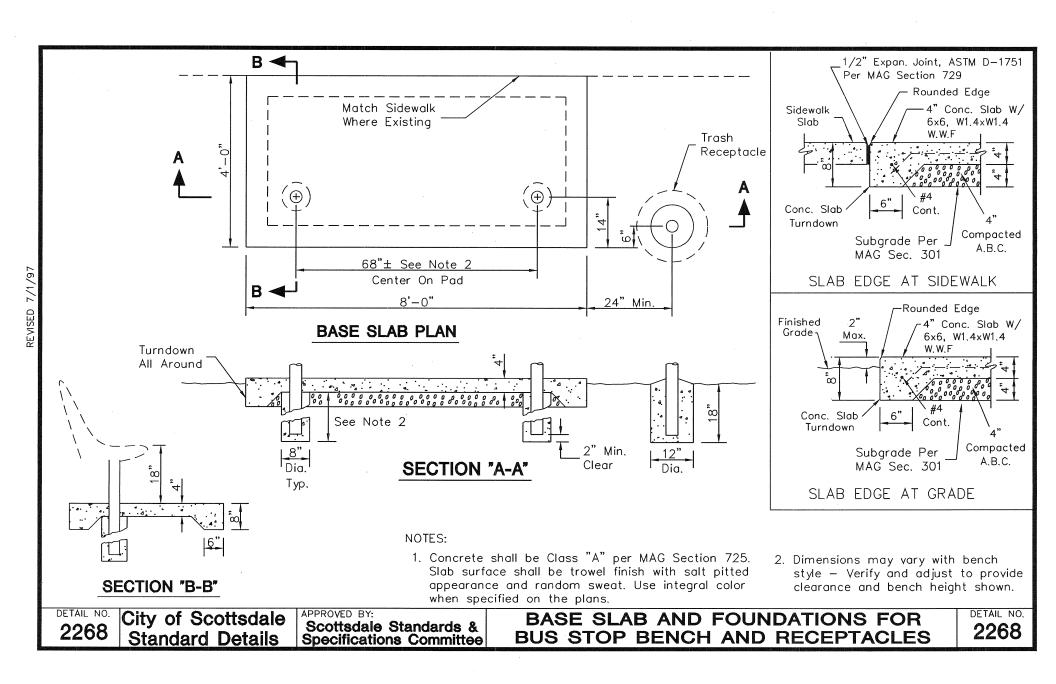
BUS SHELTER

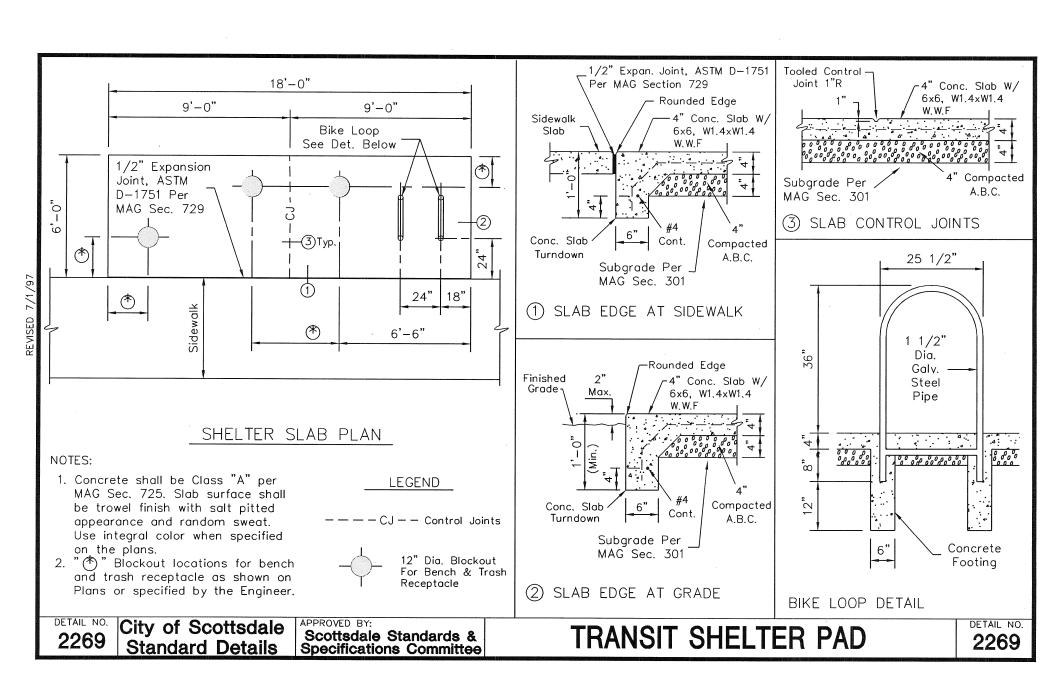
DETAIL NO.

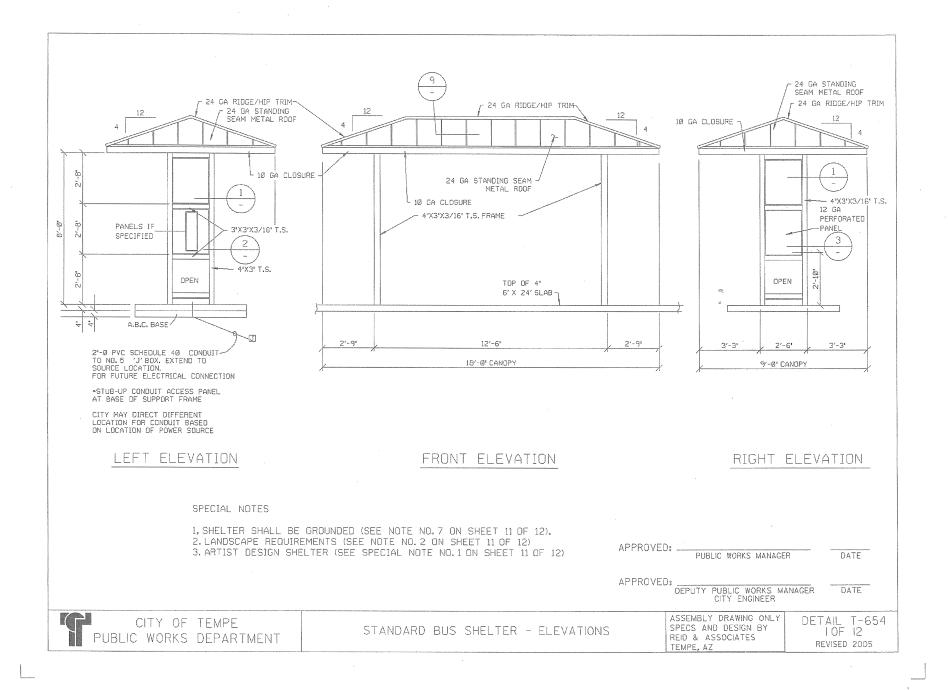
ABBREVIA		1			ERIODS, BUT SHALL BE READ AS SAMI
A.B	ANCHOR BOLT	DN —	— DOWN	PCI ———	PRECAST/PRESTRESSED CONCRETE
A.B.C. ———	AGGREGATE BASE COURSE AMERICAN CONCRETE INSTITUTE	DWG(S)	— DOWN — DRAWING(S) — END TO CENTERLINE		INSTITUTE
\(\(\)	AMERICAN CONCRETE INSTITUTE	E.C. ———	— END TO CENTERLINE	P.C. ———	PRECAST CONCRETE
./	AMERICAN CONCRETE INSTITUTE AIR CONDITIONER ABOVE FINISHED FLOOR AMERICAN INSTITUTE OF STEEL	E.E. —	— END TO END	PLF	PRECAST CONCRETE POUNDS PER LINEAR FOOT
l.f.,f. ———	ABOVE FINISHED FLOOR	E.O.S. ———	- EDGE OF SLAB	±	PLUS OR MINUS PREFABRICATED
1120	AMERICAN INSTITUTE OF STEEL	EQ	— EQUAL	PREFAB	PREFABRICATED
101	CONSTRUCTION	E.E. E.O.S. EQ	— EQUIPMENT	PSF ———	
151		EXP. BOLT (E.B.) -	— EXPANSION BOLT	PSI	POUNDS PER SQUARE INCH POST-TENSIONING INSTITUTE
	INSTITUTE	EXP. JT (E.J.) ——	-EXPANSION JOINT	PTI	POST-TENSIONING INSTITUTE
ITC		E.W.———	— EACH WAY	REINF	REINFORCING STEEL DECK INSTITUTE
	CONSTRUCTION	F.F. ———	- FINISHED FLOOR	SDI	STEEL DECK INSTITUTE
LT. ———	ALTERNATE	F.O.M. ———	— FINISHED FLOOR — FACE OF MEMBER — FACE OF STEEL — FACE OF WALL	SLH ———	SHORT LEG HORIZONTAL SHORT LEG VERTICAL
.NSI		F.O.S. ———	FACE OF STEEL	SI V	
	INICTITUTE	F.O.W. —	- FACE OF WALL	SJI ———	
.PA		GA	— FACE OF WALL — GAGE (UNIT OF MEASUREMENT) — GALVANIZED — GENERAL STRUCTURAL NOTES — GUED—LAMINATED BEAM	SIM	——— SIMIL AR
.RCH'L ——		GALV	— GALVANIZED	SIM ————————————————————————————————————	SOLIARE
.STM	AMERICAN SOCIETY FOR TESTING	G.S.N. —	- GENERAL STRUCTURAL NOTES	SSMA -	STEEL STUD MANUFACTURERS
	AND MATERIALS	GLB (GLULAM)	GLUED-LAMINATED BEAM	331117	ASSOCIATION
ws		I HURI/		STD ———	STANDARD
)	AT (MEASUREMENT)	IBC —	— INTERNATIONAL BUILDING CODE — INTERNATIONAL CONFERENCE OF	STI —	STEFI
м	——— BEAM	ICBO —	- INTERNATIONAL CONFERENCE OF	TI	STEEL TOTAL LOAD
.F.F	BELOW FINISHED FLOOR			TOP	TOTAL LUAD
LK	—— BLOCK	I.F. W. ———	INCIDE EACE OF WALL	T.O.B.	TOP OF BEAM TOP OF CONCRETE TOPPING TOP OF DECK
.O.B. ———	BOTTOM OF BEAM	LOD	— INSIDE FACE OF WALL — INTERPRETATION OF DRAWINGS	T.O.C. I.	TOP OF DECK
I.O.D. ———	AMERICAN WELDING SOCIETY AT (MEASUREMENT) BEAM BELOW FINISHED FLOOR BLOCK BOTTOM OF BEAM BOTTOM OF DECK BOTTOM OF FOOTING	K(KID)	1000 POLINDS	T.O.D.	TOP OF DECK
O.F	BOTTOM OF FOOTING	KIF —	— 1000 FOUNDS — KIPS PER LINEAR FOOT — POUNDS — LIGHT GAGE STEEL	T.O.F.	TOP OF LEDGER
RG	BEARING CAMBER CENTERLINE TO CENTERLINE	IBS (#)	— POLINDS	T.O.L.	TOP OF LEDGER TOP OF MASONRY
	CAMBER	1.GS	- LICHT CACE STEEL	T.O.M.	TOP OF MASONRY TOP OF PLATE
C ———		LGSEA -	— LIGHT GAGE STEEL ENGINEERS	T.O.P.	TOP OF PLATE
. G. ———	CENTER OF GRAVITY CAST IN PLACE	1 2002	ASSOCIATION	T.O.P.C. ——	TOP OF PRECAST CONCRETE TOP OF STEEL
IP		1.00	- LOCATION OF DETAILS	1.0.5.	TOP OF WALL
···· ·		LL —	- LIVE LOVD	1.0.W.	TOP OF WALL TRUSS PLATE INSTITUTE
. L. I B			— LIVE LOAD — LONG LEG HORIZONTAL	TYP	TRUSS PLATE INSTITUTE
. L. D	CAST IN PLACE CENTERLINE CENTERLINE OF BEAM CENTERLINE OF COLUMN CENTERLINE OF FOOTING	LLA	- LONG LEG HORIZONTAL	TYP	TYPICAL
. L. C.		LLV	- LONG LEG VERTICAL - MASONRY	1&G	TONGUE AND GROOVE
. L . I .	CENTEDINE OF WALL	MAS	- MASONRY CONTROL JOINT	OBC	UNIFORM BUILDING CODE
. L. W.	CENTERLINE OF WALL CLEAR CONCRETE	MAS C.J.	— MASONRY CONTROL JOINT — MAXIMUM	U.N.O.	—— UNLESS NOTED OTHERWISE —— VERTICAL REINFORCING
CVC	CONCRETE	MAX —	— MAXIMUM	VERT	VERTICAL REINFORCING
	CONCRETE	MBMA	- METAL BUILDING MANUFACTURERS	WCLA -	
ONC C.J. ——	CONCRETE CONTROL JOINT CONCRETE SAWCUT JOINT	MECH'L	ASSOCIATION	WCLIB —	
ONC 5.J	CONCRETE SAWCUT JOINT	MECH L	— MECHANICAL		BUREAU
.M.U	CONCRETE MASONRY UNIT	MFR(S)	— MANUFACTURER('S) — MINIMUM	W.W.F	WELDED WIRE FABRIC
ONT	CONCRETE SAWCUT JOINT CONCRETE MASONRY UNIT CONNECTION CONTINUOUS	MIN -	— MINIMUM	WWPA	
UN I	CONTINUOUS	N/A ————————————————————————————————————	- NOT APPLICABLE		A SSOCI A TION
.0.5. ———		N.T.S. —	- NOT TO SCALE	w/	WITH
₹SI 		0.C.	ON CENTER	W/C	WATER TO CEMENT RATIO
	INSTITUTE	O.F.W.	— OUTSIDE FACE OF WALL	W/O	WATER TO CEMENT RATIO WITHOUT
	DEAD LOAD	OPP ———	ON CENTER OUTSIDE FACE OF WALL OPPOSITE OCCUPATIONAL SAFETY AND	'	
OR DIA	—— DIAMETER	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION		

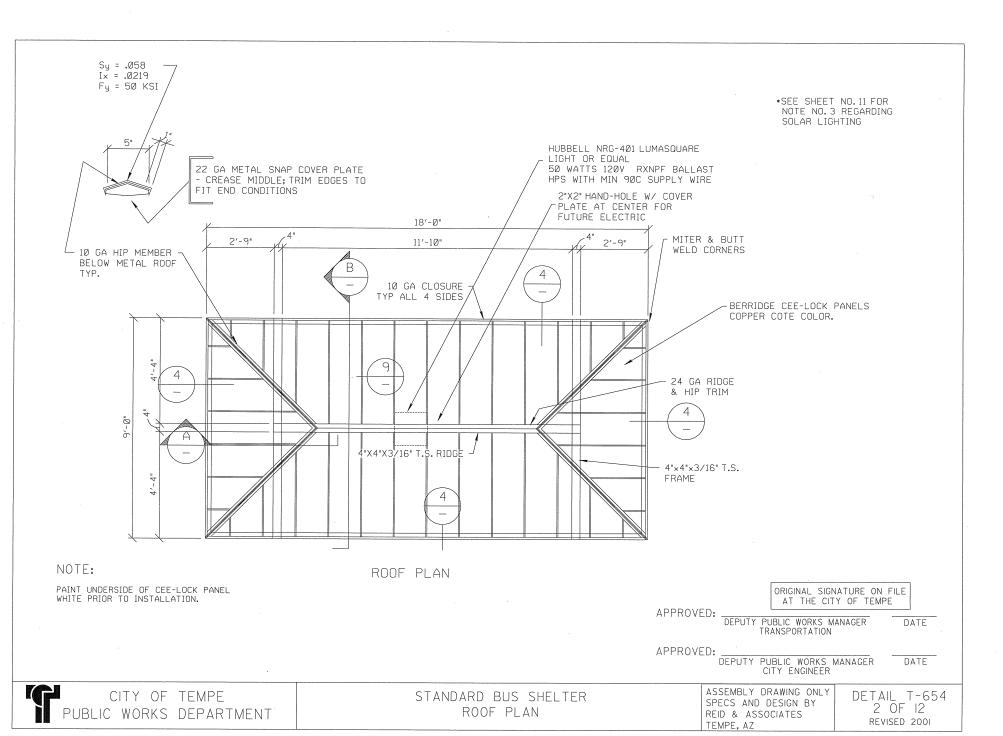
2265-7 Standard Details Scottsdale Standards & Specifications Committee

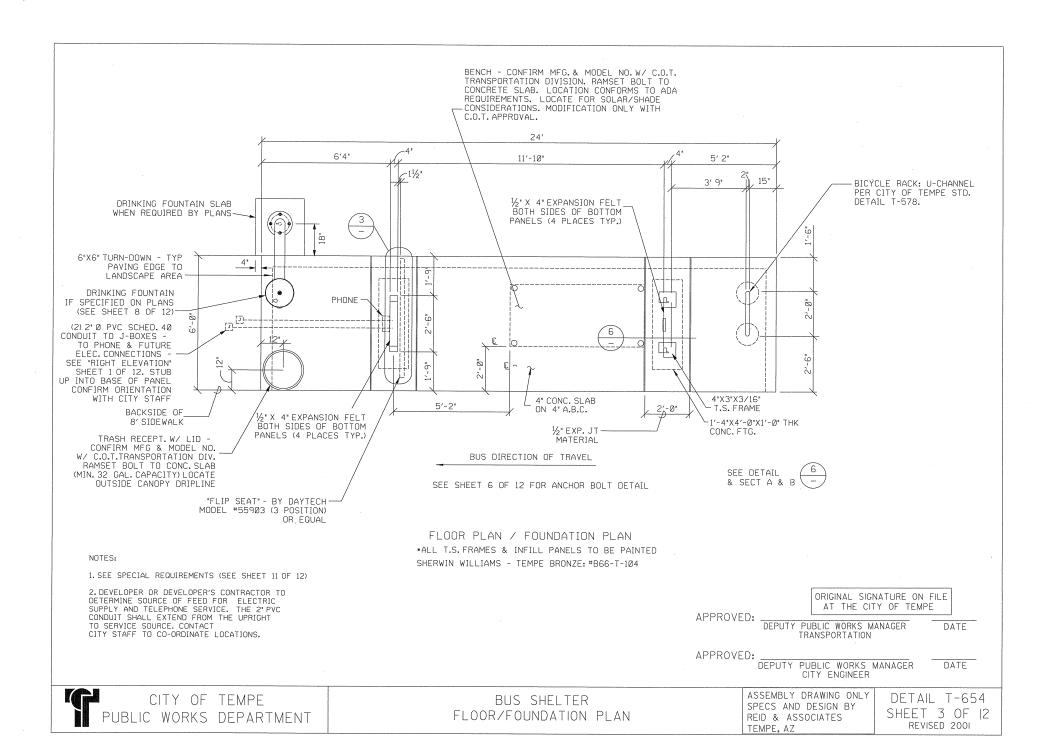
BUS SHELTER

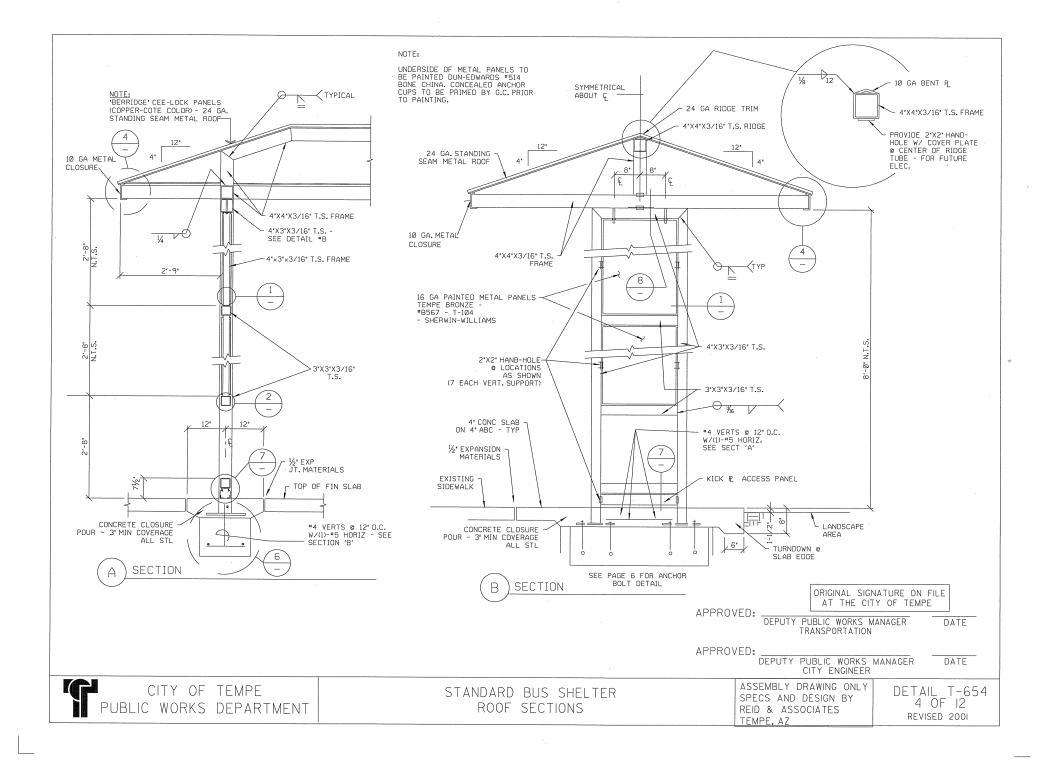


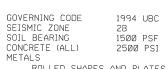












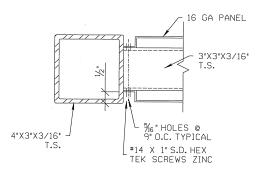
 ROLLED SHAPES AND PLATES
 Fy=36 KSI

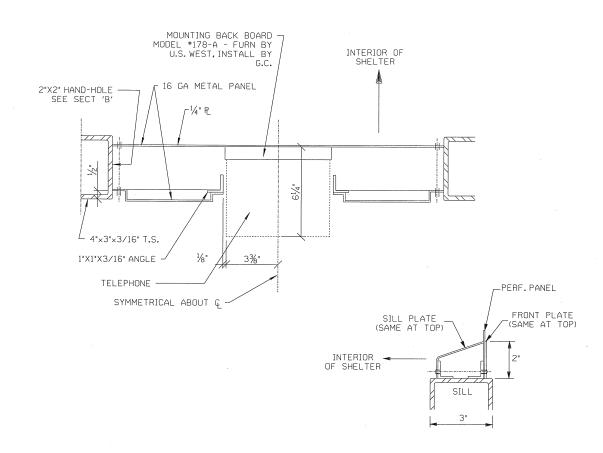
 PIPES
 Fy=36 KSI

 STRUCTURAL TUBING
 Fy=46 KSI

 10 GAGE BENT PLATE
 Fy=50 KSI

CONSTRUCTION TYPE II-N OCCUPANCY M1





(1) PANEL TO FRAME CONNECTION

(2) TELEPHONE MOUNTING DETAIL

(3) PERFORATED PANEL TO FRAME

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS MANAGER TRANSPORTATION

DATE

APPROVED:

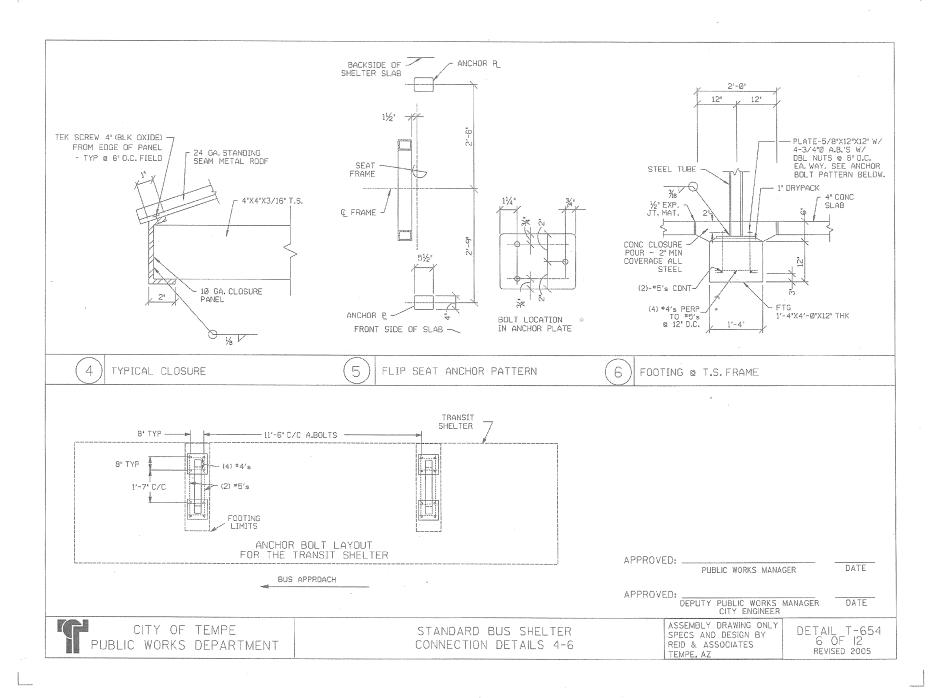
DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER DATE

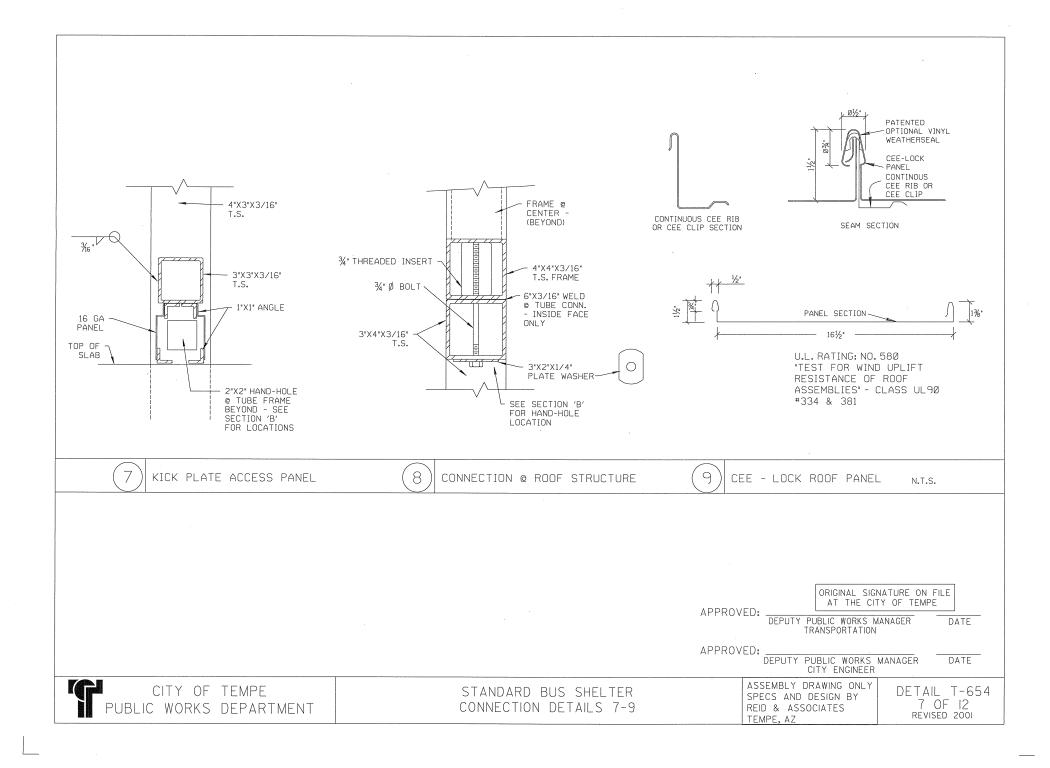
CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

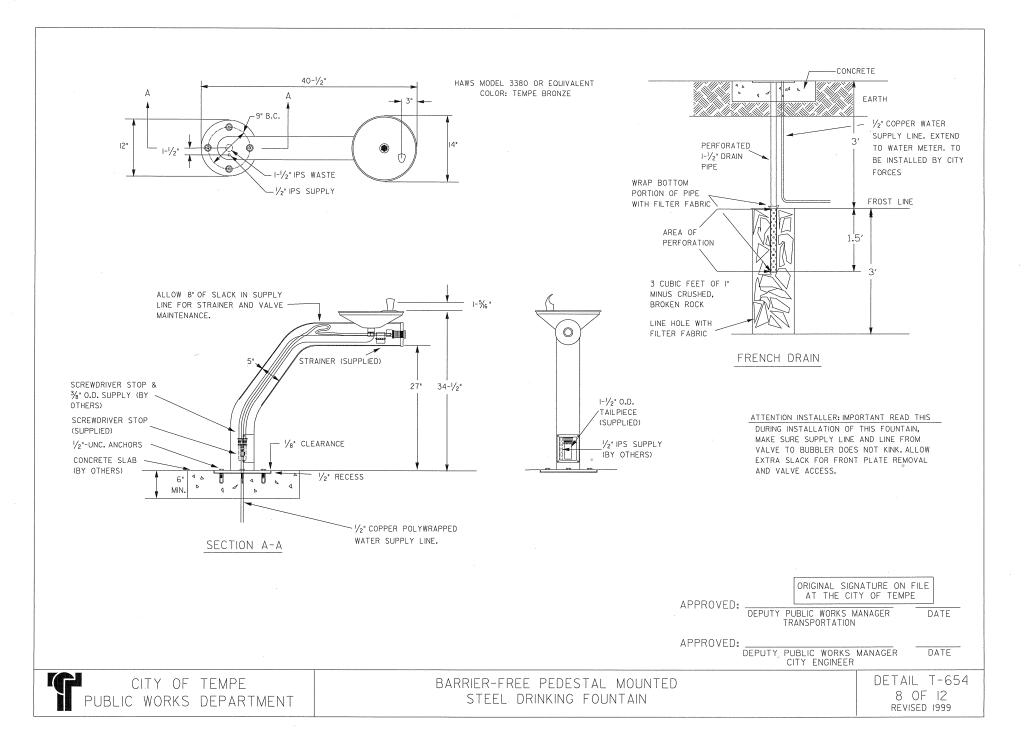
STANDARD BUS SHELTER CONNECTION DETAILS 1-3

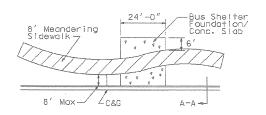
ASSEMBLY DRAWING ONLY SPECS AND DESIGN BY REID & ASSOCIATES TEMPE, AZ

DETAIL T-654 5 OF 12 REVISED 2001

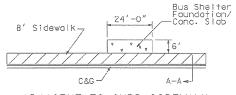




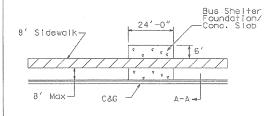




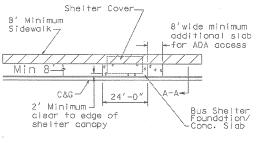
ADJACENT TO MEANDERING SIDEWALK



ADJACENT TO CURB SIDEWALK

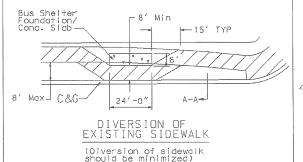


ADJACENT TO PARKWAY SIDEWALK



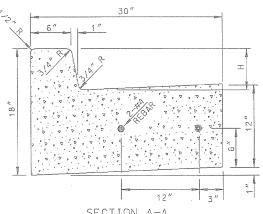
OVER PARKWAY AND SIDEWALK OR WITHIN THE PARKWAY

(See Transit for approval prior to use)

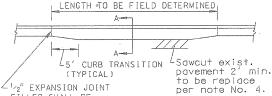


NOTE:

FOR BUS STOP SIGNS SEE SPECIAL NOTE NO. 5 ON SHEET 11 OF 11.



SPECIAL C&G ADJACENT
TO BUS STOP.



FILLER SHALL BE
BITUMINOUS TYPE
PREFORMED, A.S.T.M.
D-1751(TYPICAL).

CURB AND GUTTER
TRANSITION

NOTES:

- 1. H=7" or match existing ourb & gutter 2. Class "AA" concrete.
- 3. Same notes as MAG Det. No. 221
- 3. Same notes as MAG Det. No. 221
 4. Pavement replacement shall be min. 3" thick per detail T-312 or T-313 on 12" ABC on minimum 6" of prepared subgrade. or match existing (whichever is greater).

PUBLIC WORKS MANAGER

existing (whichever is greater).

DATE

APPROVED:_

APPROVED:_

DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER

TPUBLIC WORKS DEPARTMENT

STANDARD BUS SHELTER FOUNDATION LOCATION OPTIONS AND SPECIAL CURB & GUTTER.

DETAIL T-654 9 OF 12 REVISED 2005

9' X 27' SHELTER SHELTER UPRIGHTS EASEMENT INSTALLED AT BACK OF SIDEWALK (TYP.) 27' 24' 6' X 24', SHELTER SLAR END OF SHELTER UPRIGHT I' X 4' X I' FOUNDATION 8' S/W INSTALLED UNDER SIDEWALK (TYP.) 9' X 18' STREET SHELTER CANOPY

SPECIAL REQUIREMENTS:

- I. AN ARTIST-DESIGNED SHELTER MAY BE SUBSTITUTED FOR STANDARD SHELTER BY APPROVAL OF CITY OF TEMPE TRANSIT SECTION, HOWEVER, IT MUST INCORPORATE ALL THE FUNCTIONAL ELEMENTS INCLUDED IN THE STANDARD SHELTER. SEE TRANSIT & DESIGN REVIEW STAFF FOR DETAILS.
- 2. SITE'S LANDSCAPING THEME SHOULD PROVIDE APPROPRIATE TREES FOR A SHADE CANOPY NEAR OR AROUND SHELTER.
- 3. SOLAR POWERED LIGHTING WHEN APPROVED BY TRANSIT SECTION STAFF MAY BE SUBSTITUTED FOR THE SPECIFIED LIGHTING.
- 4. SITE-SPECIFIC STYLE OF FURNITURE WILL BE REQUIRED IN THE MILL AVE. DOWNTOWN AREA, ON APACHE BLVD., AND ON ART SHELTERS. CONTACT THE TRANSIT SECTION STAFF FOR DETAILS.
- 5. STANDARD BUS STOP SIGN LOCATION: NEW OR RELOCATED SIGNS SHALL BE APPROVED BY THE TRAFFIC/TRANSIT STAFF.
- 6. ADDITIONAL REQUIREMENTS MAY INCLUDE: a) LEANING RAIL -- "LACOR" MODEL.....
- b) LED REAL TIME BUS INFORMATION SIGN c) BUS ROUTE/TRAFFIC INFORMATION KIOSKS
- d) PEDESTRIAN RAILING AROUND THE BACK OF SHELTER ADJACENT TO STEEP SLOPES OR DROP-OFFS
- 7. CITY OF TEMPE TRANSIT (BUS SHELTERS) SHALL BE PROVIDED WITH A GROUNDING SYSTEM THAT MAY CONSIST OF ONE OF THE FOLLOWING METHODS: a) 25 FEET OF #4 STRANDED COPPER (UNINSULATED) INSTALLED IN THE BASE OF ONE OF THE UPRIGHT FOUNDATIONS. THE GROUNDING CONDUCTOR WILL EXTEND OUT OF THE POURED CONCRETE FOUNDATION WITH A LENGTH NOT TO EXCEED 3 FEET. THE GROUNDING CONDUCTOR WILL BE WRAPPED IN A CLOCKWISE ROTATION, ONE WRAP, AROUND ONE OF THE UPRIGHT ANCHOR BOLTS. A FLAT FENDER WASHER WILL BE INSTALLED ON TOP OF THE CONDUCTOR WITH THE ANCHOR BOLT NUT ON TOP OF THE FLAT WASHER AND SECURED.
- b) A SECOND METHOD WILL CONSIST OF A $\frac{5}{8}$ °X 8' Ground rod driven in the electrical pullbox adjacent to the bus shelter. A ground rod terminal nut (acorn nut) will be installed on top of the ground rod SECURING A #8 AWG BARE SOLID COPPER WIRE. THE GROUND WIRE WILL BE INSTALLED FROM THE JUNCTION BOX, UNBROKEN AND UNSPLICED, TO THE BUS SHELTER UPRIGHT WHERE IT WILL BE TERMINATED. A SET-SCREW TERMIAL LUG WILL BE FASTENED TO THE STRUCTURE UPRIGHT UNDER THE BOTTOM KICKPANEL. THE AREA UNDER THE TERMINAL LUG WILL BE CLEANED OF ALL RUST, SCALE AND PAINT. THE #8 BARE BOND CONDUCTOR WILL BE TERMINATED IN THE SET-SCREW TERMINAL LUG.

BOTH GROUNDING METHODS WILL BE DONE IN ACCORDANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.

8. SEE SHEET 12 OF 12 FOR BUS SHELTER POWER AND LIGHT DETAIL.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

APPROVED:

DEPUTY PUBLIC WORKS MANAGER TRANSPORTATION

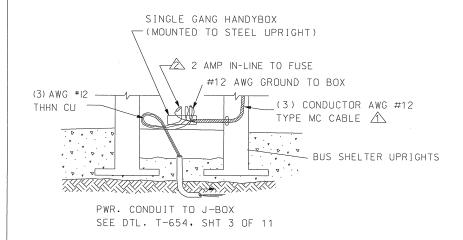
DATE

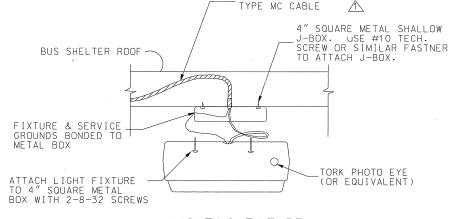
APPROVED:

DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER

DATE

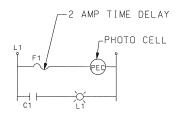






LIGHTING POWER CONNECTION





TRANSIT SHELTER LIGHTING SCHEMATIC 120 V AC 10

NOTES:

⚠TYPE MC CABLE TO BE INSTALLED AS PER N.E.C. ARTICALE 334

3 CONDUCTOR AWG #12

(2) AMP, TIME DELAY, SINGLE TRIP FUSE.

TYPE LITTLE FUSE LGR/LMF OR EQUIVALANT.

ALL GROUNDING WILL BE INSTALLED IN COMPLIANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

APPROVED:

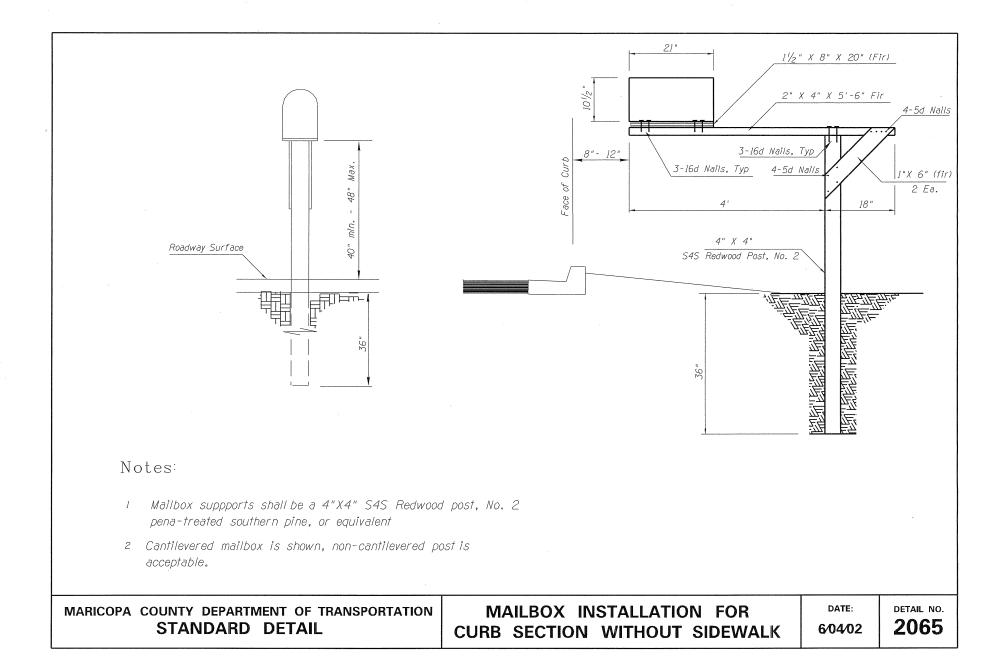
DEPUTY PUBLIC WORKS MANAGER TRANSPORTATION

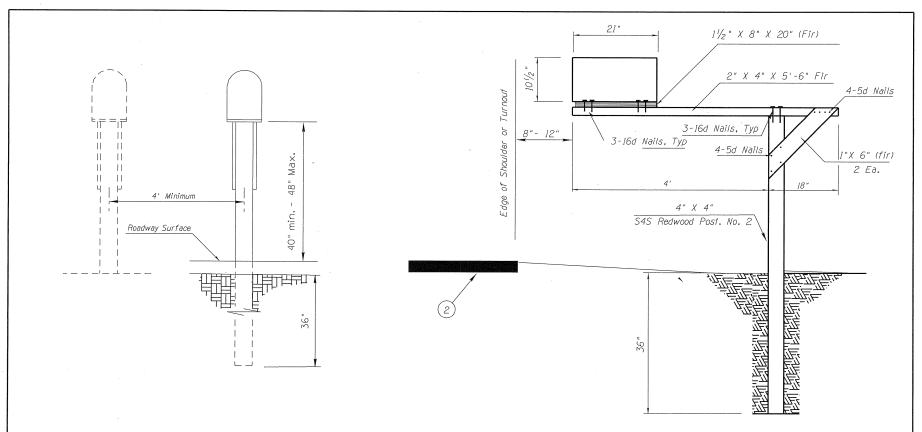
DATE

APPROVED:

DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER DATE







Notes:

- 1 Mailbox support shall be a 4"X4" S4S redwood post, No. 2 pena-treated southern pine, or equivalent.
- 2 Design shoulder to have a minimum of 4 inch depth of ABC for width of shoulder to allow all weather access.
- 3 Multiple installation of single mailboxes shall be spaced at 4' (minimum) on center.

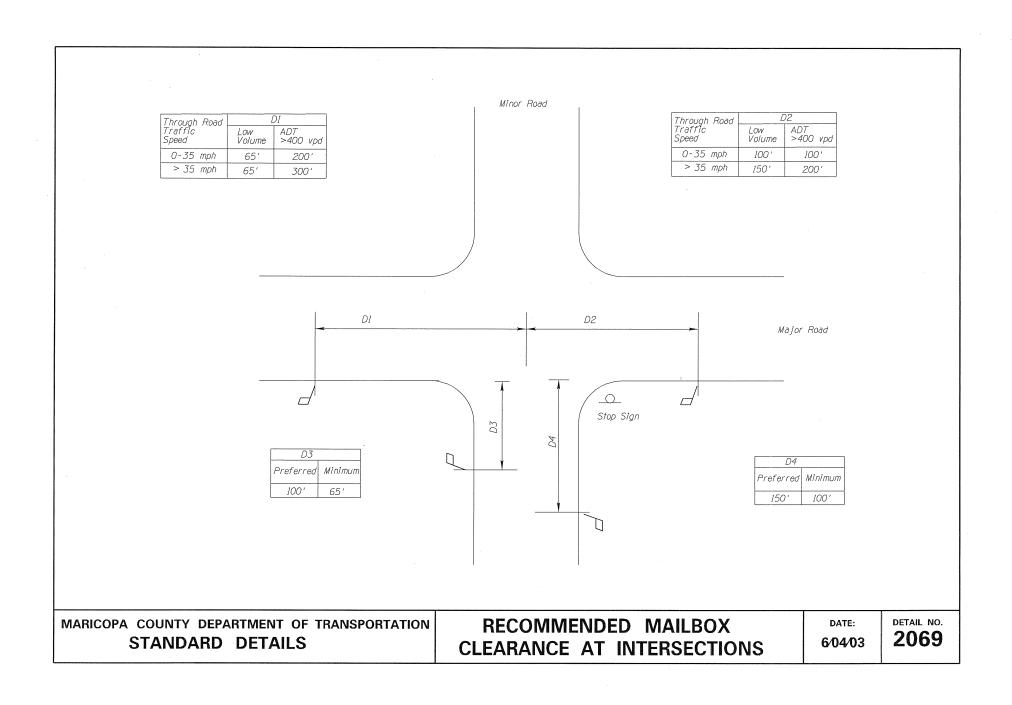
WARICOPA	STAN	 	 TRANSPORTATION

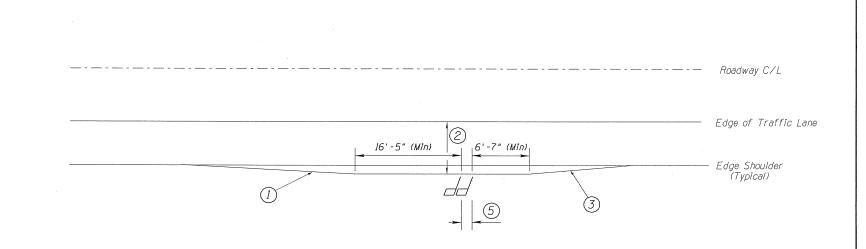
MAILBOX INSTALLATION FOR SHOULDER SECTION

DATE:

6/04/03

2067





NOTES:

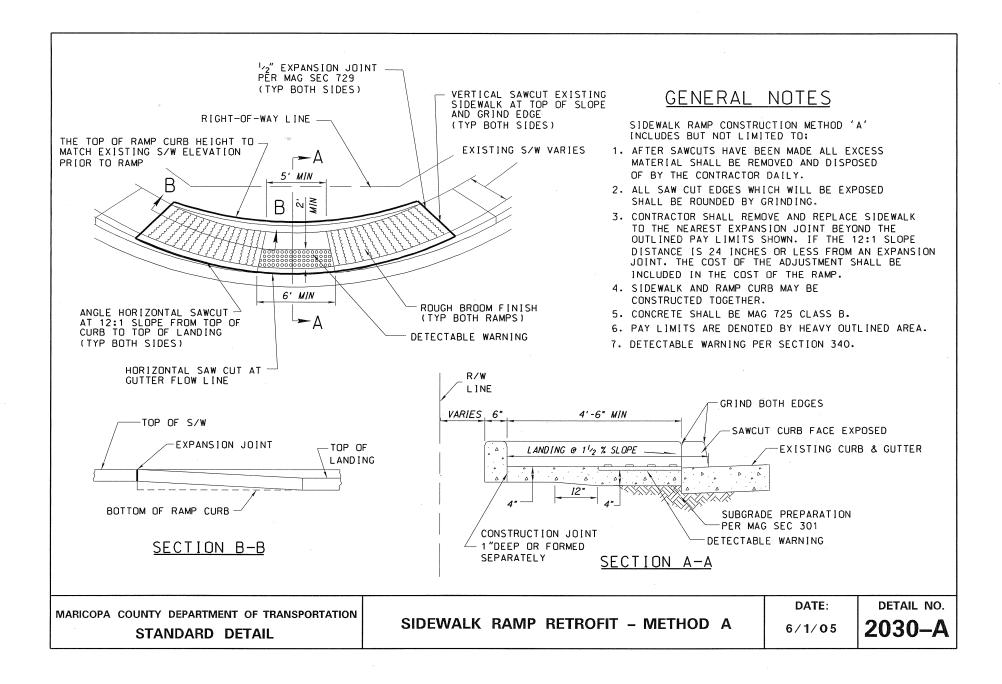
- (1) Taper 20:1 for speeds of 40 mph or greater, 4:1 for less than 40 mph.
- 2 Pullout Width 12' for speeds of 40 mph or greater, 10' for speeds less than 40 mph.
- 3 Taper 12:1 for speeds of 40 mph or greater, 5:1 for less than 40 mph.
- 4 Provide stabalized surface (as minimum) for all mailbox turnouts (paved turnouts are preferred).
- (5) Use at least 4' spacing between mailboxes.

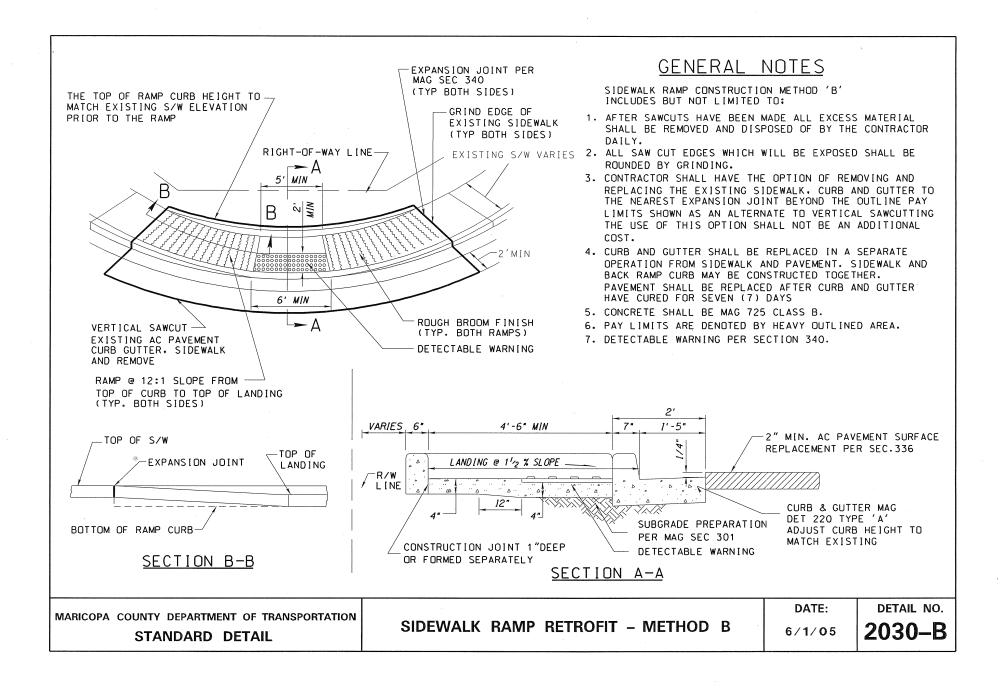
MARICOPA	COUNTY	DEPART	VENT	OF	TRANSPORTATION
	STAN	IDARD	DET	ΙΑΙ	L

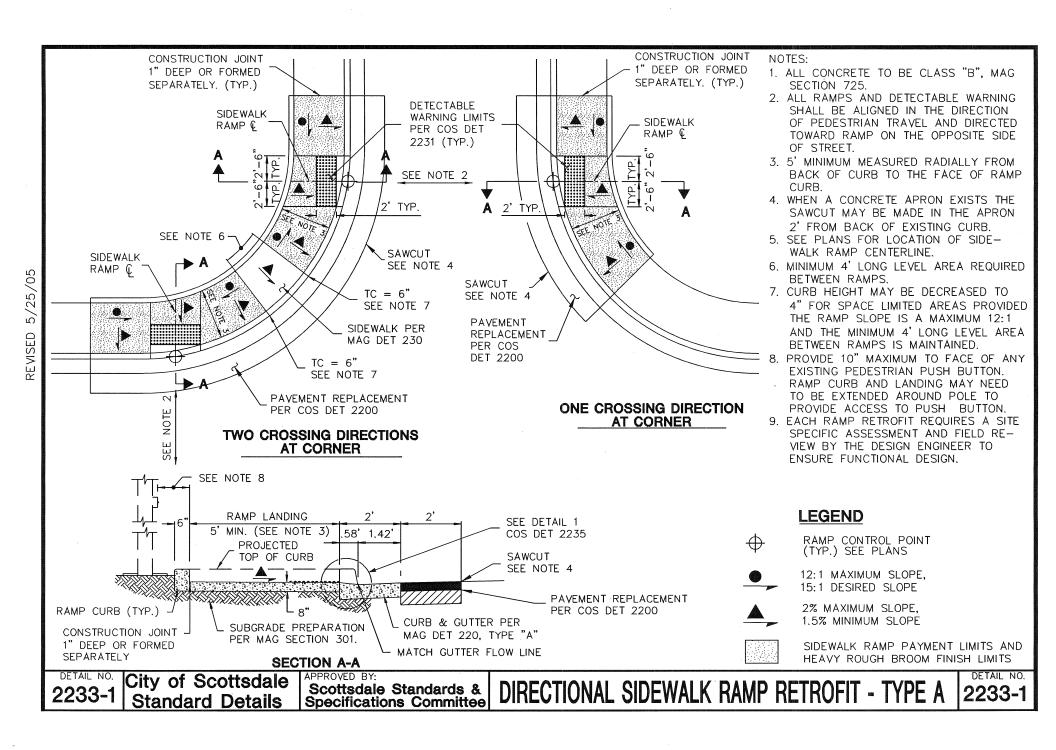
TYPICAL MAILBOX TURNOUT

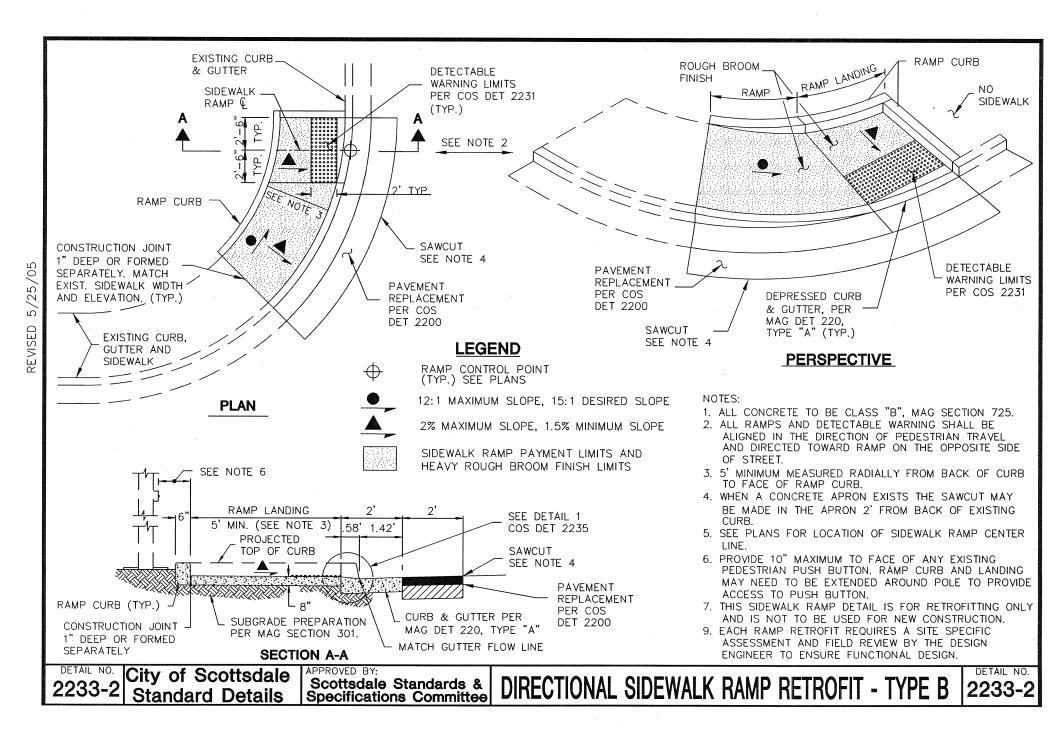
DATE: 6/04/03

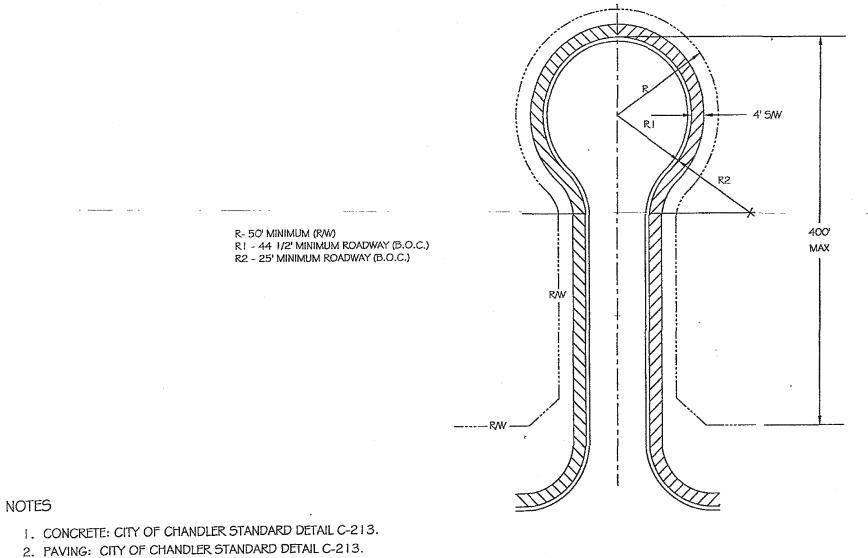
2070











- 3. SIDEWALKS REQUIRED. CITY OF CHANDLER STANDARD DETAIL C-213.

C-232 REPLACES 41



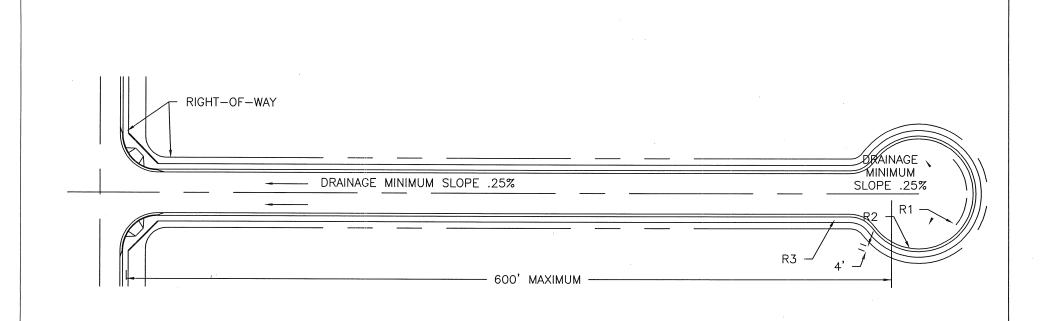
CITY OF CHANDLER STANDARD DETAIL

CUL-DE-SAC

APPROVED: Den . Hallron

DATE: 11-19-99

DETAIL NO.



ALL STREETS
PAVEMENT SECTION TO CONFORM TO GILBERT STANDARD DETAIL 27

R1=64.50' MINIMUM (R/W) R2=55.00' MINIMUM (F.O.C.) R3=35.00' MINIMUM (F.O.C.)

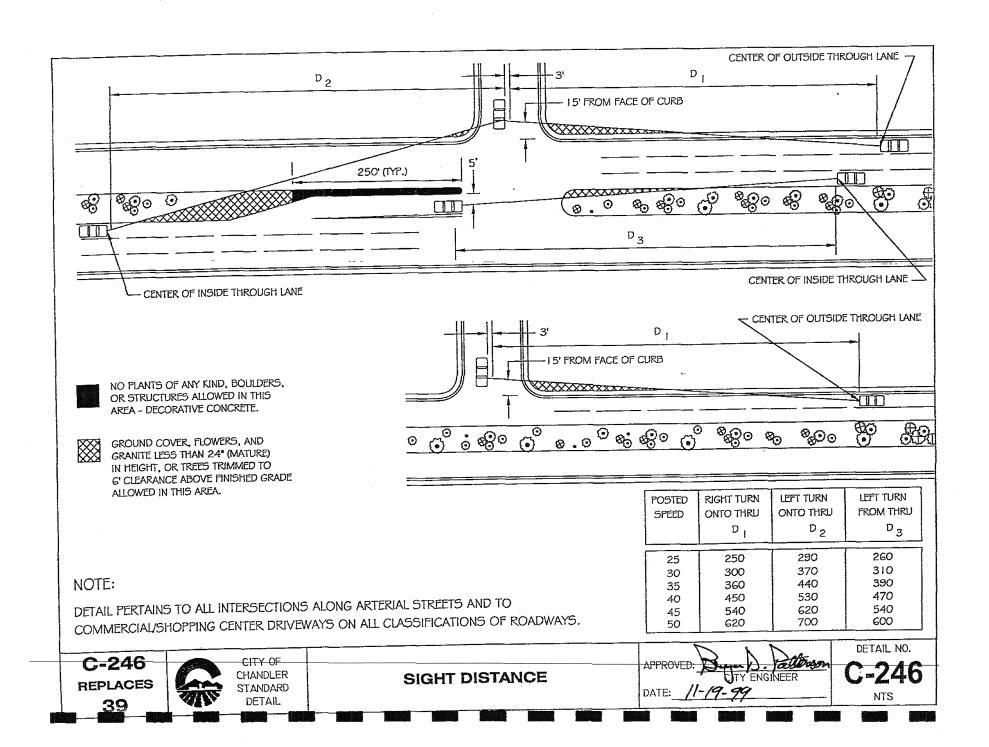
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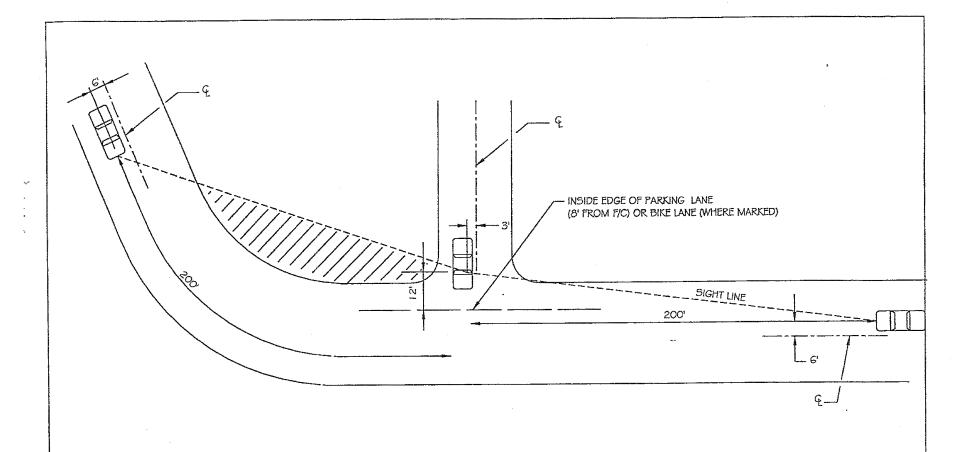
TOWN OF GILBERT STANDARD DETAIL

CUL-DE-SAC

REVISED 1/2005

DETAIL NO.





NOTE:

THIS STANDARD APPLIES ONLY TO DRIVEWAY AND CROSS-STREET ENTRIES ONTO STREETS WITH A 25 MPH SPEED LIMIT, ON-STREET PARKING AND/OR BIKE LANES. ONCOMING VEHICLE MUST BE VISIBLE TO DRIVER OF ENTERING VEHICLE FOR AT LEAST 200 FEET FROM INTERSECTION, MEASURED ALONG PATH OF ONCOMING VEHICLE. NO GROUND COVER, SHRUBS, FLOWERS, MOUNDS, WALLS OR STRUCTURES OVER 24 INCHES IN HEIGHT ALLOWED ON STREET SIDE OF SIGHT LINE. TREES MUST BE TRIMMED TO 6 FEET ABOVE GROUND ON STREET SIDE OF SIGHT LINE.

C-247
REPLACES
39A

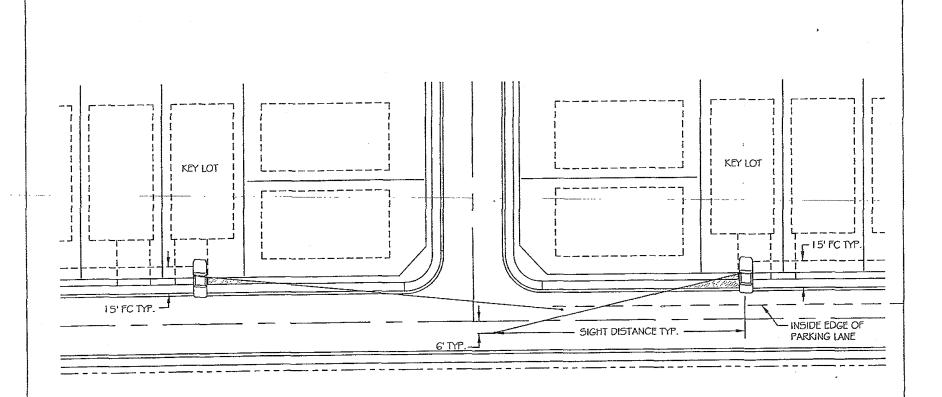


SIGHT DISTANCE FOR LOW SPEED LOCAL OR COLLECTOR STREETS

APPROVED: DITY ENGINEER
DATE: //- /9- 99

DETAIL NO. **C-247**

NTS



NOTES:

DRIVEWAY ON KEY LOTS NEED TO BE PLACED ON FAR SIDE OF LOT FROM REAR FENCE OF CORNER LOT.

NO STRUCTURES OR LANDSCAPING ABOVE 24" IN HEIGHT ALLOWED IN THIS AREA EXCEPT TREES WITH BRANCHES NOT LESS THAN 6' ABOVE THE GROUND.

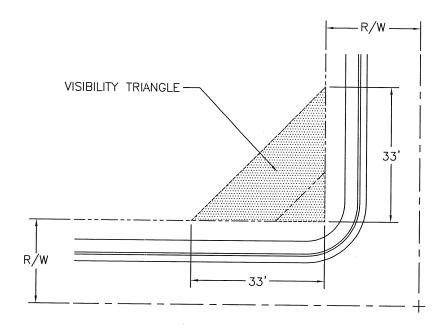
DESIGN SPEED	SIGHT DISTANCE
25 MPH	200 FEET

DETAIL NO.



KEY LOT SIGHT DISTANCE

DETAIL NO.



GROUND COVER AND FLOWERS LESS THAN
24 INCHES (MATURE) IN HEIGHT, GRANITE, AND
TREES TRIMMED TO MINIMUM OF 7 FEET ABOVE
GROUND ALLOWED IN THIS AREA.

NOTE: DETAIL PERTAINS TO ALL UNCONTROLLED INTERSECTIONS.

CONTROLLED INTERSECTIONS SHALL MEET THE REQUIREMENTS

DETAIL NO.

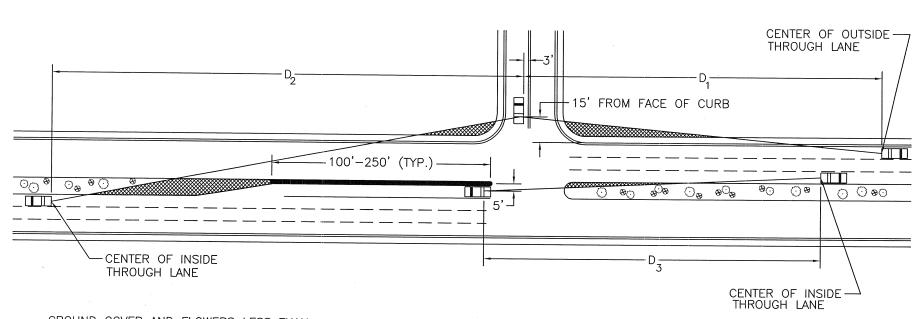
TOWN OF GILBERT STANDARD DETAIL

SIGHT DISTANCE AT UNCONTROLLED INTERSECTIONS

IN STANDARD DETAIL 93.

8/2/96

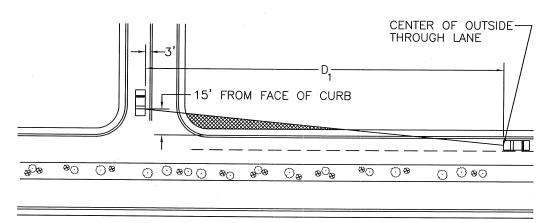
DETAIL NO.



GROUND COVER AND FLOWERS LESS THAN
24 INCHES (MATURE) IN HEIGHT, GRANITE, AND
TREES TRIMMED TO MINIMUM OF 7 FEET ABOVE
GROUND ALLOWED IN THIS AREA.

NO PLANTS OF ANY KIND, BOULDERS, OR STRUCTURES ALLOWED IN THIS AREA. DECORATIVE CONCRETE PREFERRED.

POSTED SPEED LIMIT ON MAIN STREET	D ₁	D ₂	D ₃
25	250	290	260
30	300	370	310
35	360	440	390
40	450	530	470
45	540	620	540
50	620	700	600



NOTE: DETAIL PERTAINS TO ALL CONTROLLED INTERSECTIONS AND COMMERCIAL/SHOPPING CENTER DRIVEWAYS ON ALL CLASSIFICATIONS OF ROADWAYS.

UNCONTROLLED INTERSECTIONS SHALL MEET THE REQUIREMENTS IN STANDARD DETAIL 92.

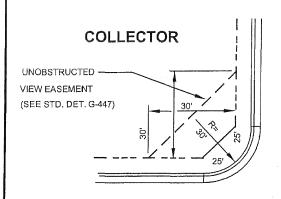
DETAIL	NO.
9,	3

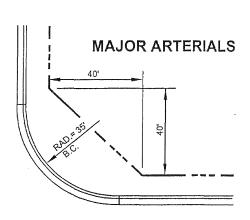
STANDARD DETAIL G-321

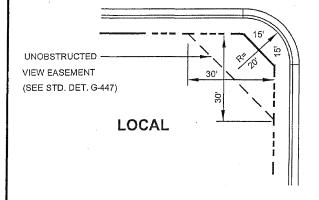
CITY OF GLENDALE ENGINEERING

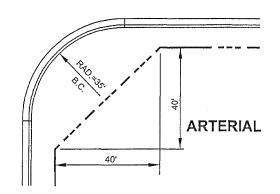


CORNER RADII DEDICATIONS AND VIEW EASEMENTS









NOTE: ALL CURB RETURNS SHALL
HAVE SIDEWALK RAMPS PER
MAG. STD. DET. 231, 232, OR 234.

APPROVED BY:

CITY ENGINEER

6/28/02

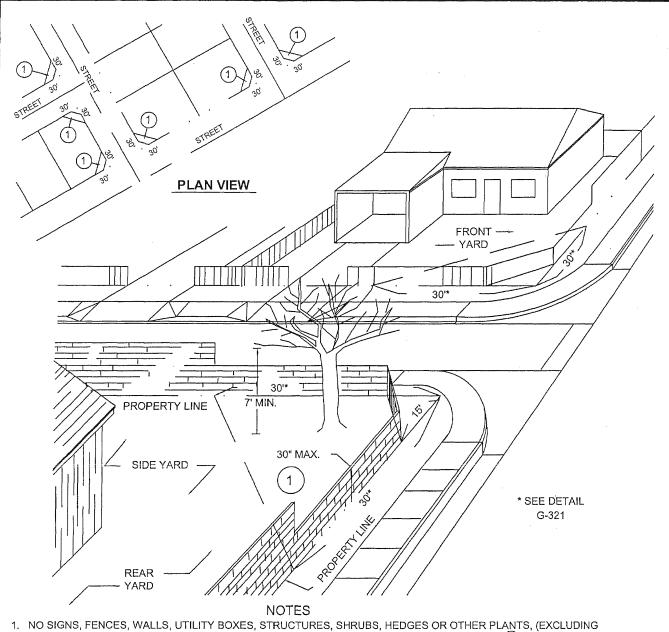
REVISED: JUNE 2002

STANDARD DETAIL G-447

CITY OF GLENDALE TRANSPORTATION



UNOBSTRUCTED VIEW EASEMENT REQUIREMENTS FOR STREETS



 NO SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANTS, (EXCLUDING TREES OVER 30 INCHES IN HEIGHT) SHALL BE PERMITTED WITHIN THE RESTRICTED AREAS. () EXCEPT AS APPROVED BY THE CITY TRANSPORTATION DIRECTOR

2. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:

A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.

B. TREES ARE PLANTED SO AS NOT TO OBSTRUCT 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OB-

STRUCTIONS PRESENT.

APPROVED BY:

TRANSPORTATION DIRECTOR

6.27.02 DATE

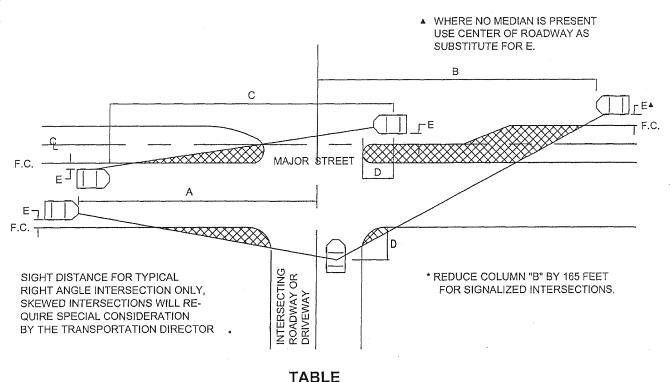
REVISED: JUNE 2002

STANDARD DETAIL G-448

CITY OF GLENDALE **TRANSPORTATION**



SIGHT DISTANCE REQUIREMENTS FOR ARTERIAL AND COLLECTOR STREETS



TABLE

STREET	Α	*B	С	D	Е
COLLECTOR	455'	455'	490'	16'	3'
ARTERIAL	585'	585'	630'	16'	3'

NOTES

- NO SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES, OR OTHER PLANTS, (EXCLUDING TREES), OVER 30 INCHES IN HEIGHT SHALL BE PERMITTED WITHIN THE RES-TRICTED AREAS, EXCEPT AS APPROVED BY THE TRANSPORTATION DIRECTOR.
- 2. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
 - A. NO LIMBS, LEAVES, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
 - B. TREES ARE PLANTED SO AS NOT TO OBSTRUCT 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.

APPROVED BY:

TRANSPORTATION DIRECTOR

6.29.02 DATE

REVISED: JUNE 2002

PEORIA DETAIL 158

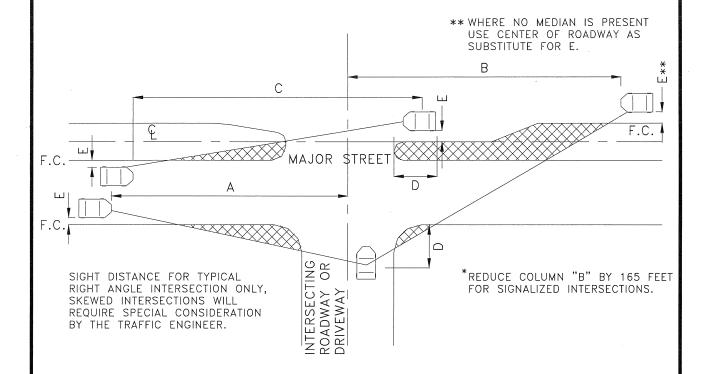
SIGHT DISTANCE REQUIREMENTS FOR ARTERIAL AND COLLECTOR STREETS



APPROVALS:

CITY ENGINEER

DATE



TABLE

STREET	А	*B	С	D	Е
COLLECTOR	455'	455'	490'	16'	3'
ARTERIAL	585'	585'	630'	16'	3'

NOTES

- 1. NO SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES, OR OTHER PLANTS, (EXCLUDING TREES) OVER 30 INCHES IN HEIGHT SHALL BE PERMITTED WITHIN THE RESTRICTED AREAS, EXCEPT AS APPROVED BY THE CITY TRAFFIC ENGINEER.
- 2. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
 - A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
 - B. TREES ARE PLANTED SO AS NOT TO OBSTRUCT 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.

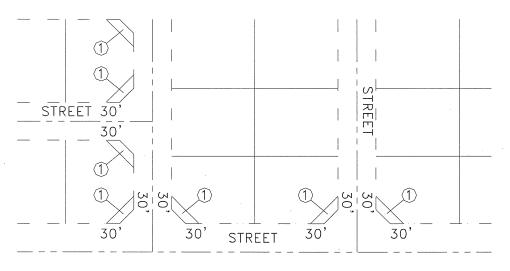
PEORIA DETAIL 159

UNOBSTRUCTED VIEW EASEMENT REQUIREMENTS FOR STREETS

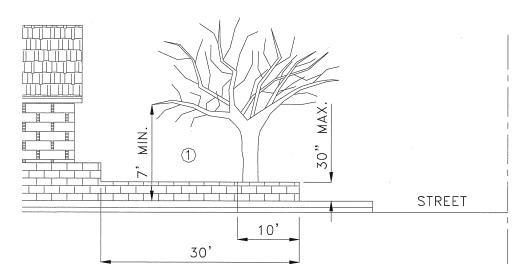


APPROVALS:

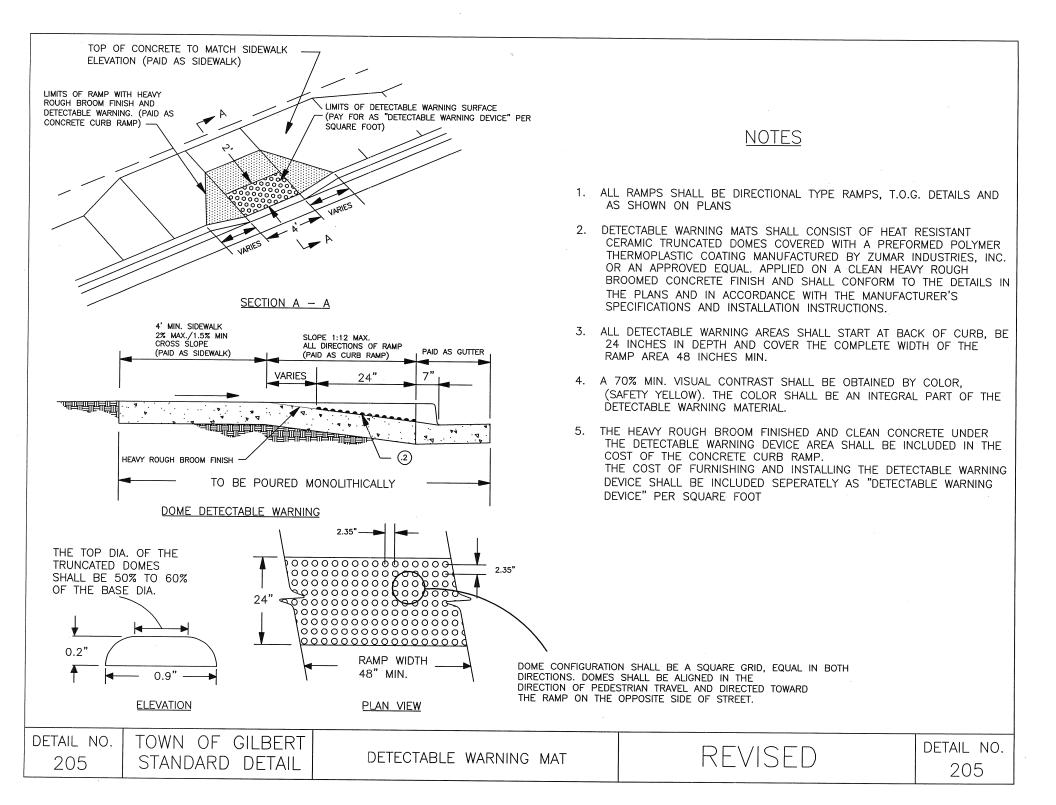
CITY ENGINEER DATE

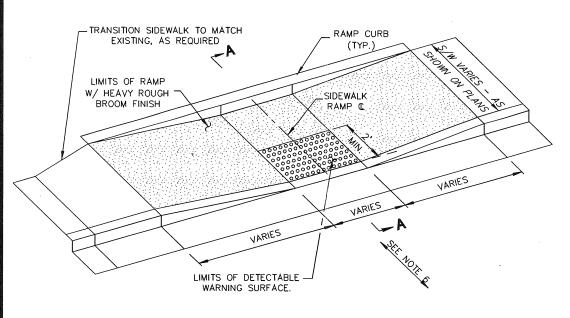


PLAN VIEW



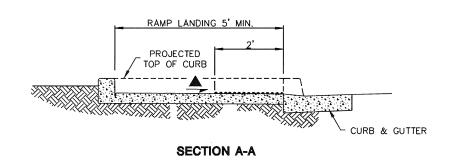
- 1. SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANS, BUT EXCLUDING TREES OVER 30 INCHES IN HIEGHT SHALL NOT BE PERMITTED WITHIN THE RESTRICTED AREAS. 1 EXCEPT AS APPROVED BY CITY TRAFFIC ENGINEER.
- 2. TREES ARE PERMITED WITHIN THE RESTRICTED AREAS PROVIDED:
 - A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
 - B. TREES ATE PLANTED SO AS TO OBSTRUCT 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.

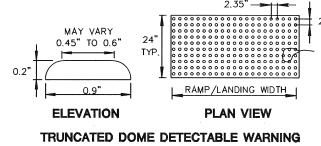




NOTES

- 1. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES MANUFACTURED BY "COTE-L INDUSTRIES, INC.". CALLED "SAFTI-TRAX". WITH POLYURETHANE COATING "DURABAK", OR APPROVED EQUAL. APPLIED ON SMOOTH (NON-GROOVED) CLEAN CONCRETE RAMP, AND SHALL CONFORM TO THE DETAILS IN THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
- 2. ALL DETECTABLE WARNING AREAS SHALL START AT BACK OF CURB, BE 24 INCHES IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA 48 INCHES MIN.
- 3, 70% VISUAL CONTRAST IS REQUIRED. THE COLOR SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING MATERIAL, AS SPECIFIED ON THE PLANS. COLOR TO BE DETER-MINED BY THE CITY STAFF, SAFETY YELLOW IS THE DEFAULT COLOR.
- 4. THE SMOOTH AND CLEAN CONCRETE UNDER DETECTABLE WARNING DEVICE AREA SHALL BE INCLUDED IN THE COST OF THE CONCRETE CURB RAMP. THE COST OF FURNISHING AND INSTALLING THE DETECTABLE WARNING DEVICE SHALL BE INCLUDED SEPARATELY AS "DETECTABLE WARNING DEVICE" PER SQUARE FOOT OR AS OUTLINED IN THE SPEC-IFICATIONS.
- 5. DETECTABLE WARNING SURFACE:
 APPLIED A COATING OF "DURABAK" SLIP-RESISTANT POLYURETHANE COATING TO THE SMOOTH, CLEAN CONCRETE SURFACE. ON TOP OF THE POLYURETHANE COATING APPLY TRUNCATED DOMES FROM A "SAFTY-TRAX" CONTACT SHEET. ON TOP OF THE TRUNCATED DOMES AND INITIAL POLYURETHANE COATING PLACE THREE ADDITIONAL COATS OF "DURABAK" POLYURETHANE COATING. COLOR TO BE DETERMINED BY CITY STAFF OR AS SPECIFIED ON THE PLANS. SAFETY YELLOW IS A DEFAULT COLOR.
- ALL RAMPS AND DETECTABLE WARNING SHALL BE ALIGNED IN THE DIRECTION OF PED-ESTRIAN TRAVEL AND DIRECTED TOWARD RAMP ON THE OPPOSITE SIDE OF STREET.





SHALL BE A SQUARE GRID, EQUAL IN BOTH DIRECTIONS. DOMES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAYEL AND DIRECTED TOWARD RAMP ON OPPOSITE SIDE OF STREET.

DETAIL NO. **2231**

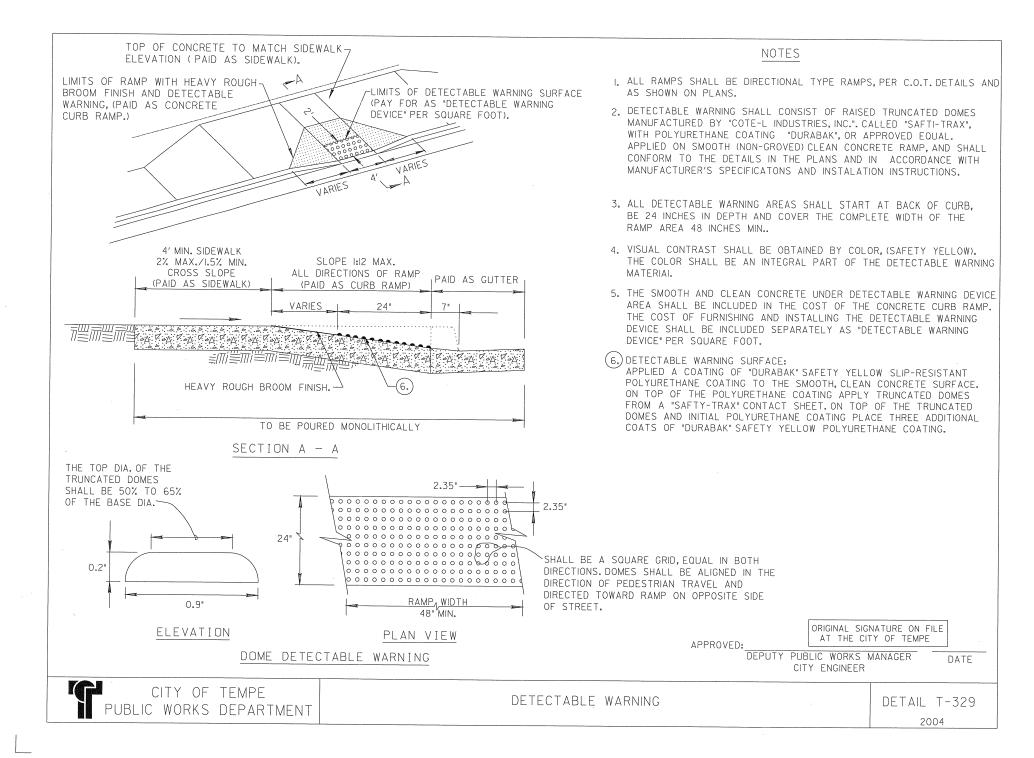
City of Scottsdale Standard Details APPROVED BY:

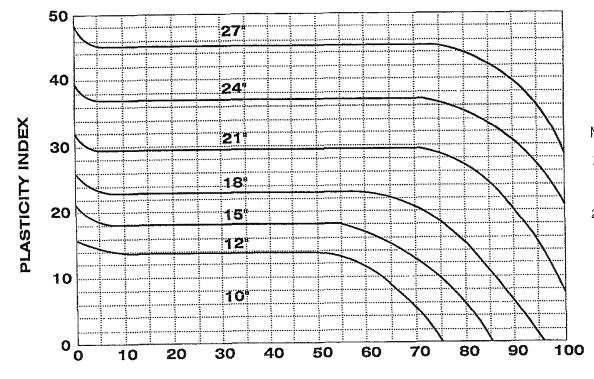
Scottsdale Standards & Specifications Committee

DETECTABLE WARNING SURFACE

DETAIL NO.

2231





NOTES:

- 1. TOP 6" OF BASE SHALL BE ABC.
 BALANCE SHALL BE ABC OR SELECT
 MATERIAL.
- 2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 4" (MIN.) BIT. SURFACE.

% PASSING 200 SIEVE

C-239 REPLACES 33

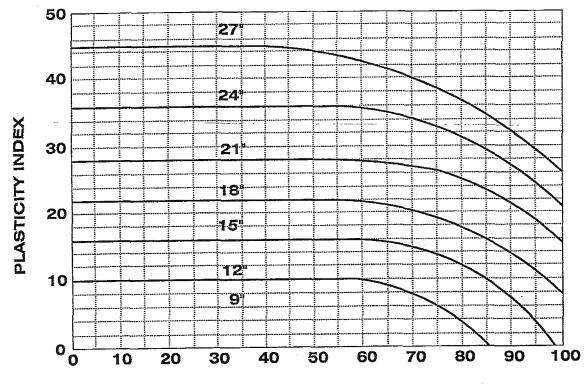


DEPTH OF BASE COURSE MAJOR & MINOR ARTERIALS

APPROVED: Has Mass

C-239

NTS



NOTES:

- TOP 6" OF BASE SHALL BE ABC. BALANCE SHALL BE ABC OR SELECT MATERIAL.
- 2. MINIMUM DEPTH OF FLEXIBLE BASE
 COURSE REQUIRED UNDER 2" (MIN.)
 BIT. SURFACE.

% PASSING 200 SIEVE

C-240 REPLACES 34



DEPTH OF BASE COURSE

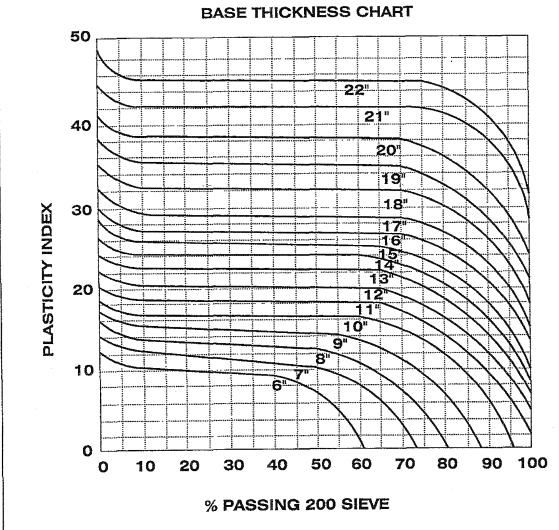
NON RESIDENTIAL COLLECTOR

& LOCAL STREETS

APPROVED: TY ENGINEER

DATE: //-/9-99

C-240



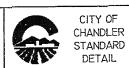
NOTES:

- I. TOP 6" OF BASE SHALL BE ABC.

 BALANCE SHALL BE ABC OR SELECT

 MATERIAL.
- 2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 2" (MIN.) BIT. SURFACE.

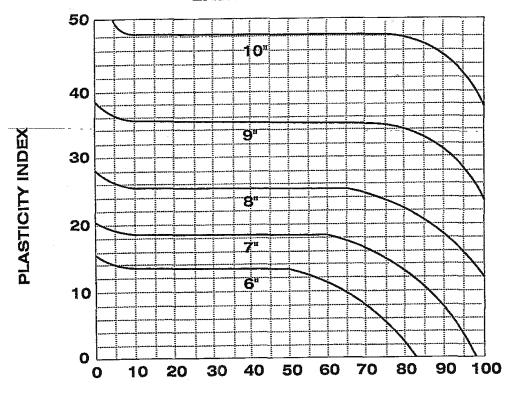
C-241
REPLACES
35



DEPTH OF BASE COURSE RESIDENTIAL COLLECTOR STREETS APPROVED: GITY ENGINEER
DATE: 11-19-99

C-241

NTS



% PASSING 200 SIEVE

NOTES:

- 1. TOP 6" OF BASE SHALL BE ABC. BALANCE SHALL BE ABC OR SELECT MATERIAL.
- 2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 2" (MIN.) BIT. SURFACE.

C-242 REPLACES 36 CITY OF
CHANDLER
STANDARD
DETAIL

DEPTH OF BASE COURSE
RESIDENTIAL LOCAL STREETS

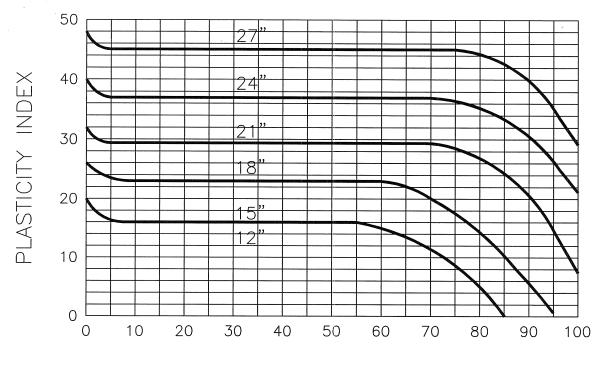
APPROVED: Dity ENGINEER

DATE: //- /9-99

DETAIL NO.

C-242

NTS



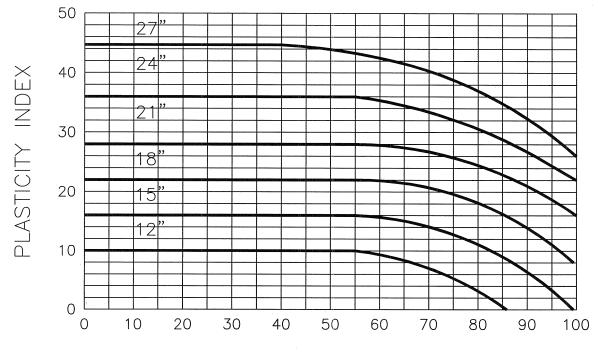
% PASSING 200 SIEVE

NOTE:

Top 4" of Base shall be ABC Balance shall be ABC or Select Material

Minimum—Depth of flexible base course Required under 4"(min) Bit. Surface

DETAIL	NO.
7	7
\mathcal{O})



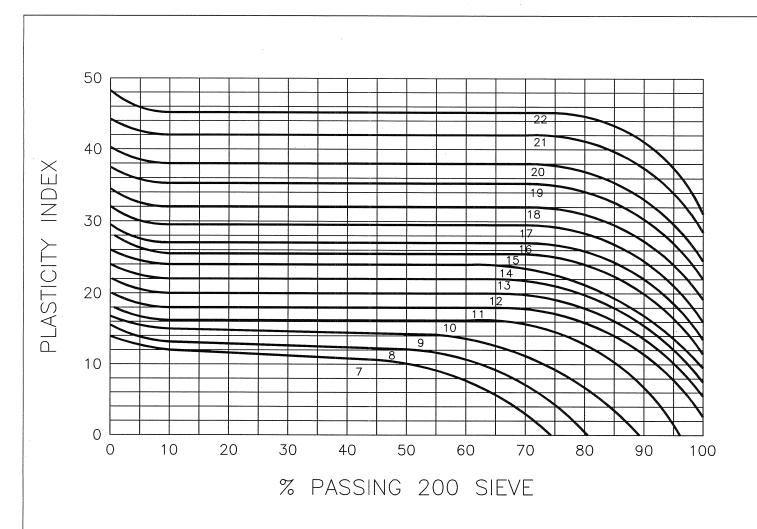
% PASSING 200 SIEVE

NOTE:

Top 4" of Base shall be ABC Balance shall be ABC or Select Material

Minimum—Depth of flexible base course Required under 2 1/2"(min) Bit. Surface

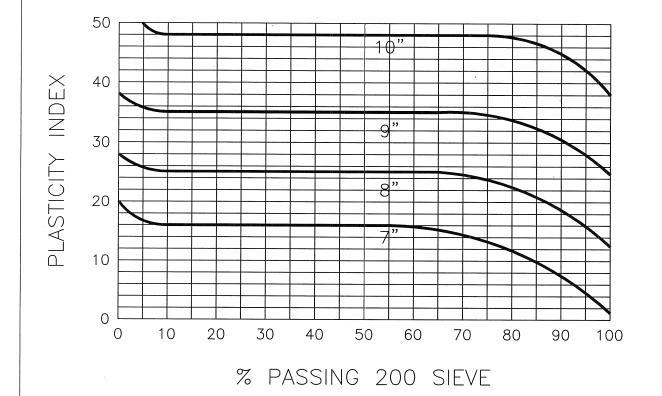
DETAIL	NO.
.34	_



NOTE:

Top 4" of Base shall be ABC Balance shall be ABC or Select Material

Minimum—Depth of flexible base course Required under 2 1/2"(min) Bit. Surface

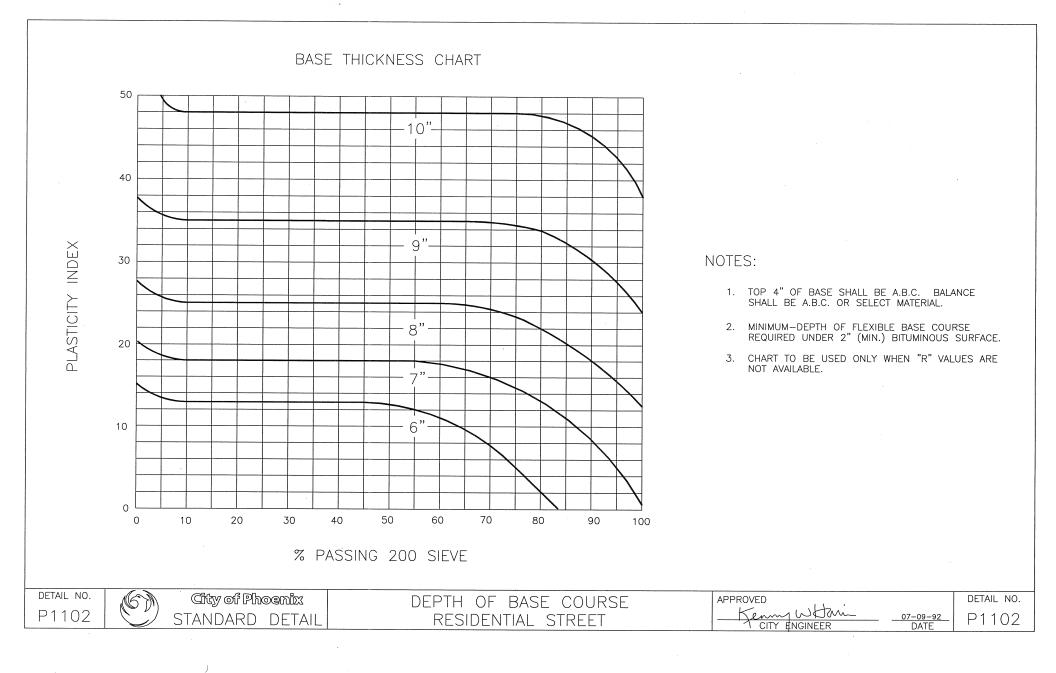


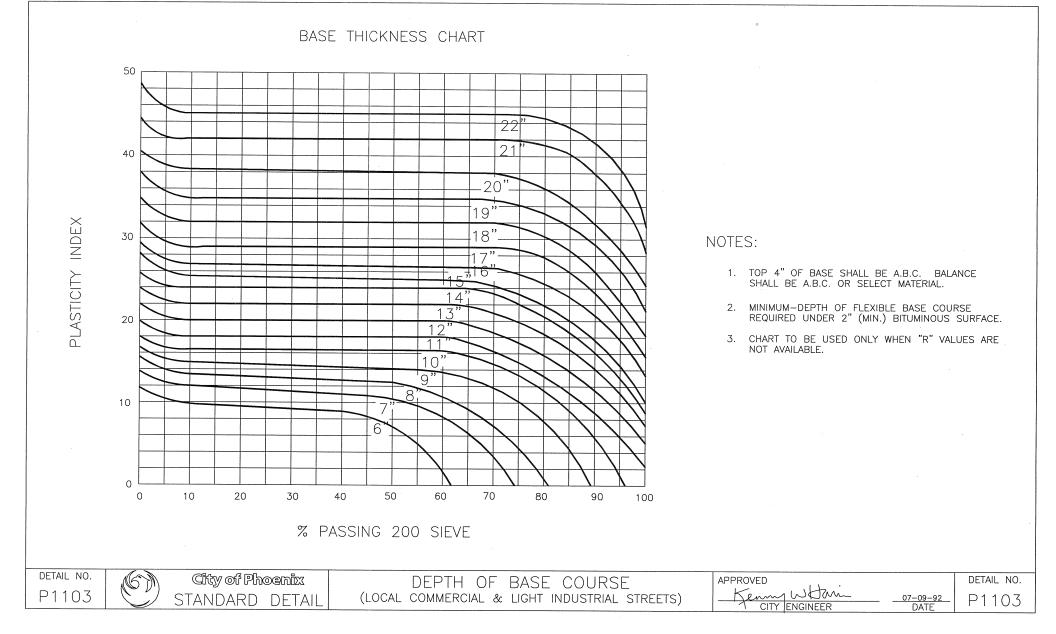
NOTE:

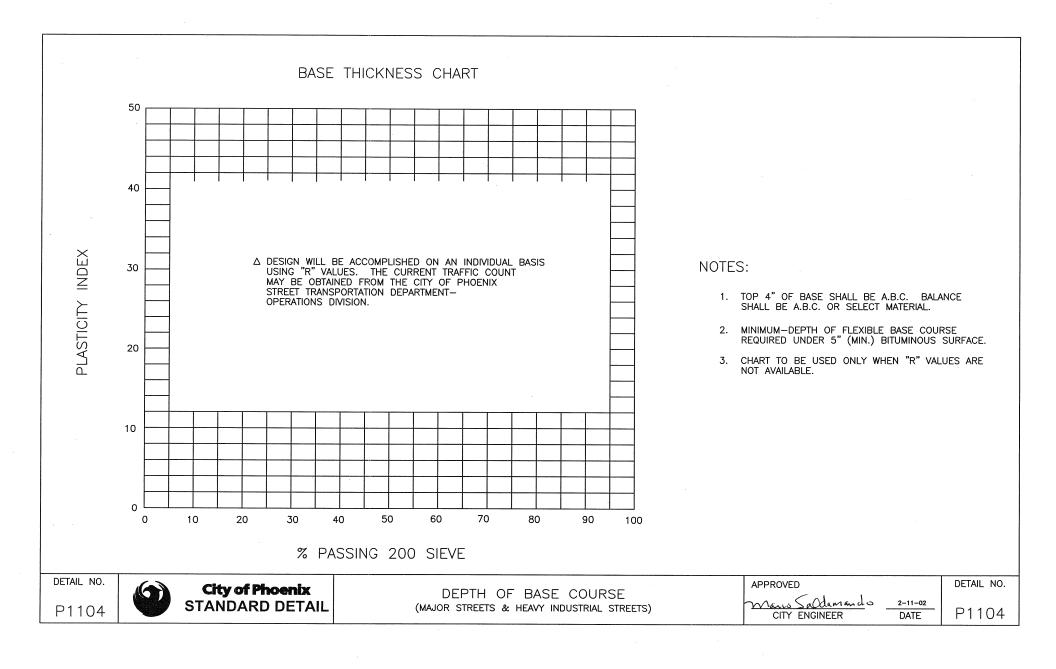
Top 4" of Base shall be ABC Balance shall be ABC or Select Material

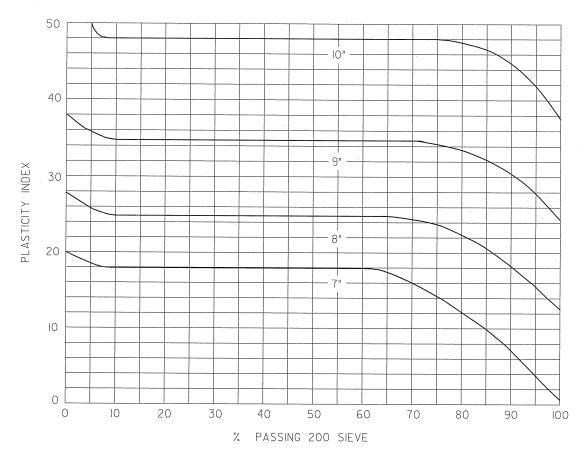
Minimum—Depth of flexible base course Required under 2 1/2"(min) Bit. Surface

DETAIL NO.	TOWN OF GILBERT
36	STANDARD DETAIL









- I. TOP 4" OF BASE SHALL BE A.B.C. OR BALANCE SHALL BE A.B.C. OR SELECT MATERIAL.

 MINIMUM-THICKNESS OF LIFT SHALL BE 4".
- 2. MINIMUM-DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 2" (MIN.) BITUMINOUS SURFACE.

APPROVED:

ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

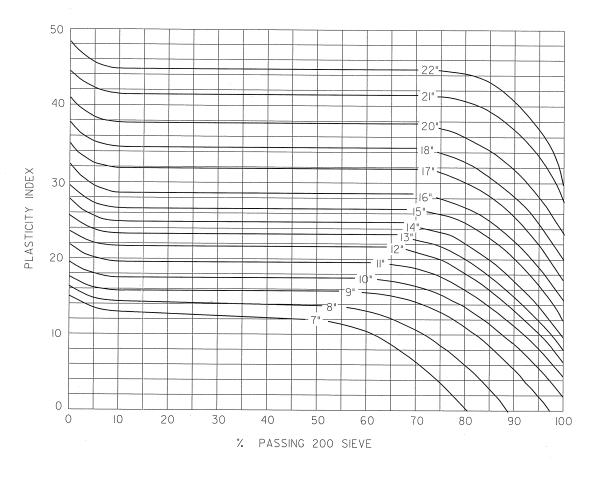
CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

DEPTH OF BASE COURSE L-I STREETS

DETAIL T-303

REVISED 1998



- I. TOP 4" OF BASE SHALL BE A.B.C. BALANCE SHALL BE A.B.C. OR SELECT MATERIAL.
- 2. MINIMUM-DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 2" (MIN.) BITUMINOUS SURFACE.

APPROVED:

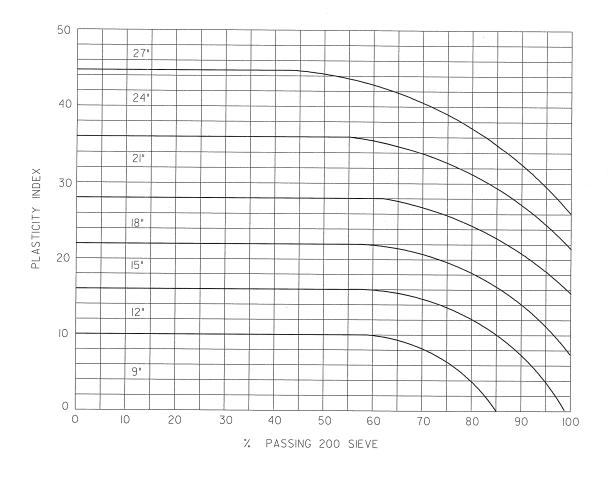
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

DEPTH OF BASE COURSE L-2 AND C-1 STREETS

DETAIL T-304
REVISED 1998



- I. TOP 4" OF BASE SHALL BE A.B.C. BALANCE SHALL BE A.B.C. OR SELECT MATERIAL.
- 2. MINIMUM-DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 3" (MIN.) BITUMINOUS SURFACE.

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

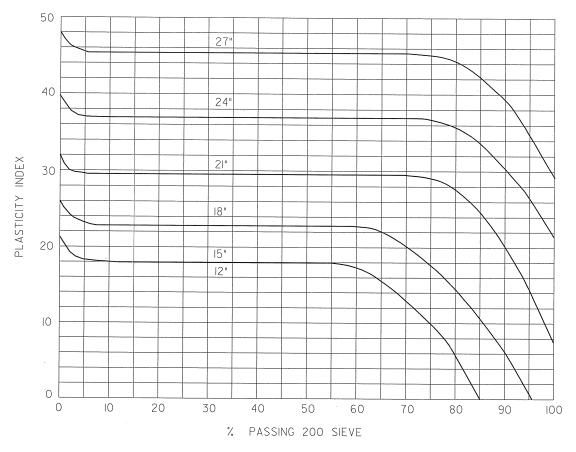
CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

DEPTH OF BASE COURSE C-2 STREETS

DETAIL T-305

REVISED 1998



- I. TOP 4" OF BASE SHALL BE A.B.C. BALANCE SHALL BE A.B.C. OR SELECT MATERIAL.
- 2. MINIMUM-DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 4" (MIN.) BITUMINOUS SURFACE.
- 3. CHART TO BE USED ONLY WHEN 'R' VALUES ARE NOT AVAILABLE.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE APPROVED: _ DATE CITY ENGINEER

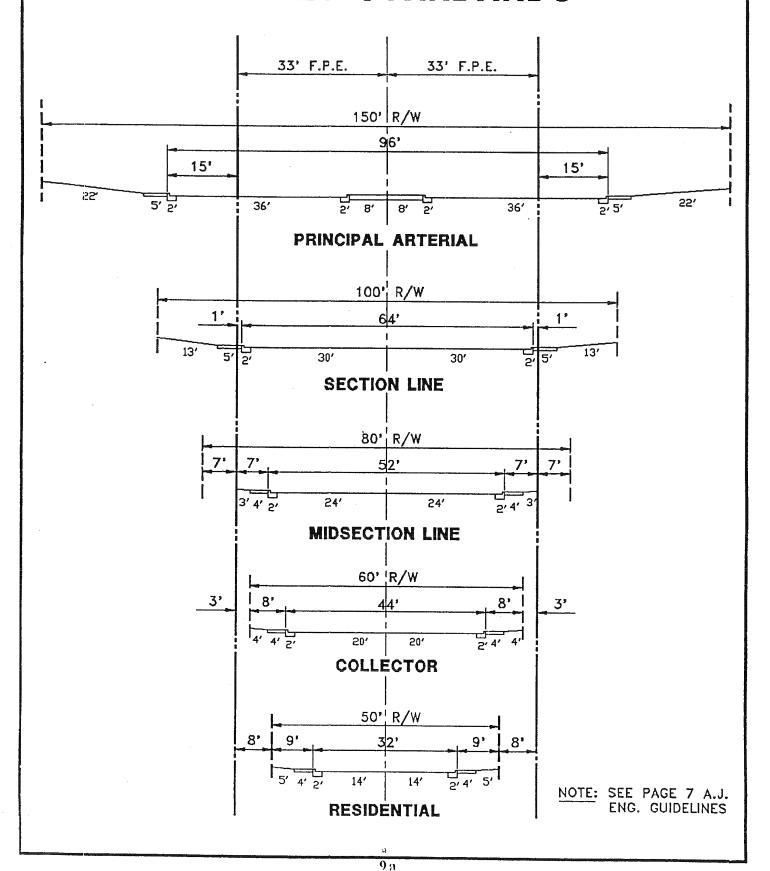
CITY OF TEMPE PUBLIC WORKS DEPARTMENT

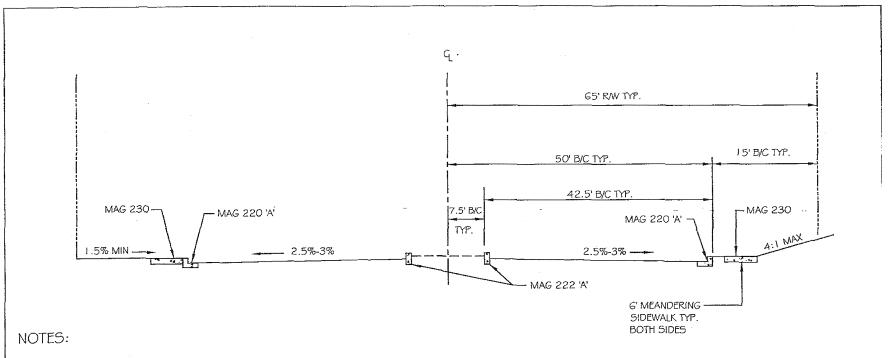
DEPTH OF BASE COURSE (A-I,A-2 AND HEAVY INDUSTRIAL STREETS)

DETAIL T-306

REVISED 1998

CITY OF APACHE JUNCTION STREET STANDARDS





- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE BASE COURSE SHALL BE 2-1/2" THICK A 1.9 OR A 25 MIX WITH THE SURFACE AT 1-1/2" OF A 1.2.5 MIX ON A 4" MAT AND SHALL BE EAST VALLEY ASPHALT COMMITTEE (E.V.A.C.) MIX DESIGNS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
- 5. MEDIAN END SHALL BE RAMP PER COC STANDARD DETAIL C-225.
- 6. MEDIAN LANDSCAPE AREA SHALL BE PER DETAIL NO. 24 OF COC GUIDELINES FOR LANDSCAPING AND IRRIGATION OF RIGHTS-OF-WAY. (MOUNDING IN MEDIAN NOT PERMITTED.)

C-203 REPLACES 20

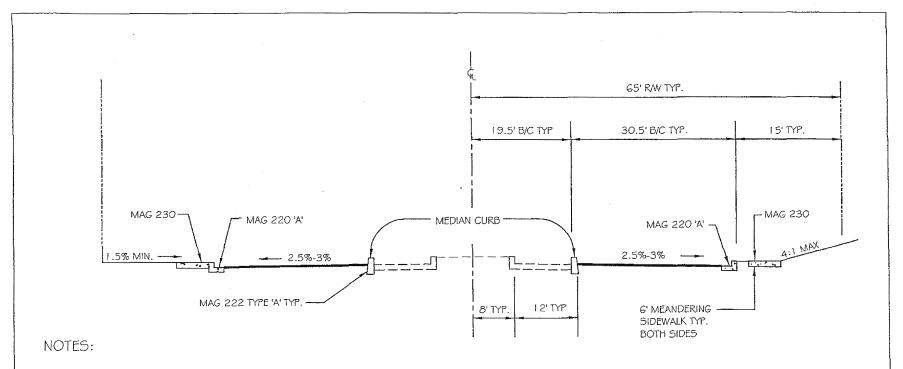


CITY OF CHANDLER STANDARD DETAIL

MAJOR ARTERIAL STREET
TYPICAL CROSS SECTION

APPROVED ON LESS HEREN

C-203



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MIN. OF 4 INCHES, 2-1/2" OF A19 OR A25 FOR BASE AND 1-1/2" OF A12.5 WEAR COURSE.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
- 5. MEDIAN LANDSCAPE AREA SHALL BE PER DETAIL NO. 24 OF COC GUIDELINES FOR LANDSCAPING AND IRRIGATION OF RIGHTS-OF-WAY. (MOUNDING IN MEDIAN NOT PERMITTED.)
- 6. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

C-204 REPLACES 21

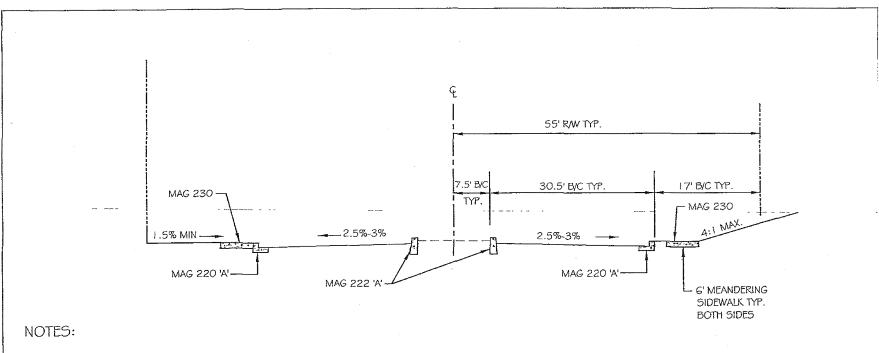


PHASED MAJOR ARTERIAL STREET
TYPICAL CROSS SECTION

APPROVED CITY ENGINEER
DATE JANUARY 11, 2002

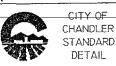
DETAIL NO.

C-204



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MIN. OF 4 INCHES, W/ 2-1/2" A 19 OR A 25 FOR BASE COURSE AND 1-1/2" OF A 12.5 FOR WEAR COURSE.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
- 5. RAMP END OF MEDIAN PER COC STANDARD DETAIL C-225.
- 6. MEDIAN LANDSCAPE AREA SHALL BE PER DETAIL NO. 24 OF COC GUIDELINES FOR LANDSCAPING AND IRRIGATION OF RIGHTS-OF-WAY. (MOUNDING IN MEDIAN NOT PERMITTED.)
- 7. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

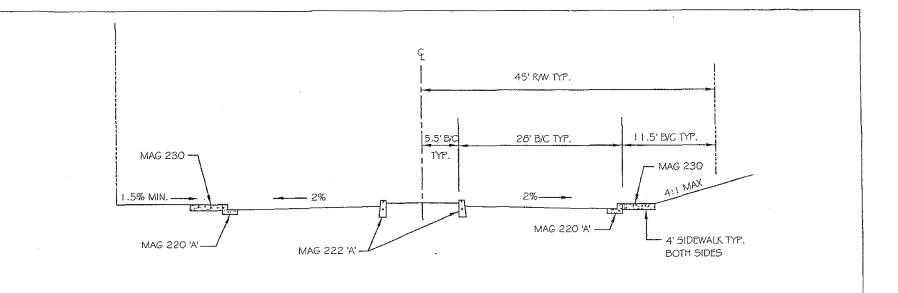
C-205 REPLACES 22



MINOR ARTERIAL STREET TYPICAL CROSS SECTION

APPROVED DISTRIBUTED STATE JAMES 11, 2002

C-205



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-240.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MIN. OF 2 INCHES OF A 19 EVAC MIX.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE 55-1H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY.
- 5. RAMP END OF MEDIAN PER COC STANDARD DETAIL C-225.
- 6. MEDIAN LANDSCAPE AREA SHALL BE PER DETAIL NO. 24 OF COC GUIDELINES FOR LANDSCAPING AND IRRIGATION OF RIGHTS-OF-WAY. (MOUNDING IN MEDIAN NOT PERMITTED.)
- 7 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED

C-206
REPLACES
23A

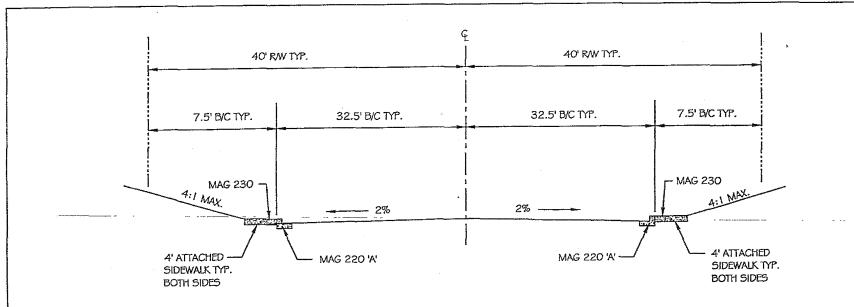


COLLECTOR STREET WITH MEDIAN
TYPICAL CROSS SECTION

DATE CAMBRY 11, ZOOZ

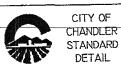
DETAIL NO.

C-206



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-240.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE OR BOTH SIDES OF ROADWAY.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

C-208 REPLACES 24

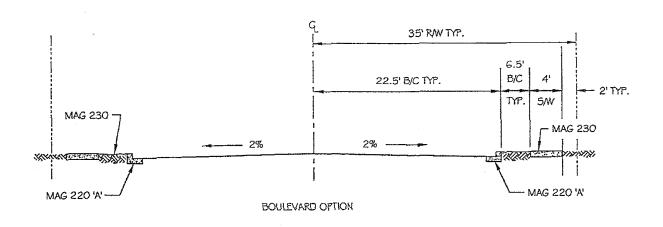


INDUSTRIAL COLLECTOR STREET
TYPICAL CROSS SECTION

APPROVED: CITY ENGINEER
DATE: //-/9-99

C-208

VIS .



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY OR ON BOTH SIDES IN INDUSTRIAL AREAS.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.
- 6. DUCTILE IRON WATER LINE UNDER STREET; METERS BACK OF WALK.

C-209 REPLACES 25A



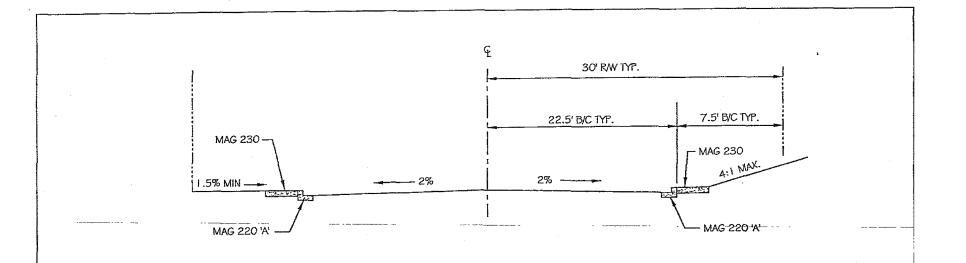
RESIDENTIAL COLLECTOR BOULEVARD
TYPICAL CROSS SECTION

APPROVED: CNY ENGINEER

DATE: 11-19-99

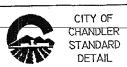
DETAIL NO.

C-209



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE 55-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY OR ON BOTH SIDES IN INDUSTRIAL AREAS.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

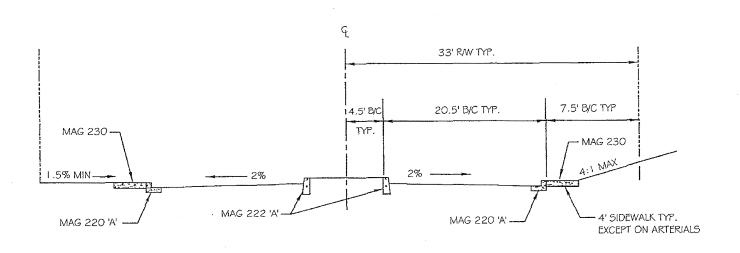
C-210 REPLACES 25B



RESIDENTIAL COLLECTOR STREET
TYPICAL CROSS SECTION

APPROVED: SITY ENGINEER
DATE: 1-19-99

C-210



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-242.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MIN. OF 2 INCHES OF A 19 MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY.
- 5. THIS STREET CROSS-SECTION DOES NOT ALLOW FOR PARKING.
- 6. RAMP END OF MEDIAN PER COC STANDARD DETAIL C-225.
- 7. MEDIAN LANDSCAPE AREA SHALL BE PER DETAIL NO. 24 OF COC GUIDELINES FOR LANDSCAPING AND IRRIGATION OF RIGHTS-OF-WAY. (MOUNDING IN MEDIAN NOT PERMITTED.)
- 8. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

C-211 REPLACES 26

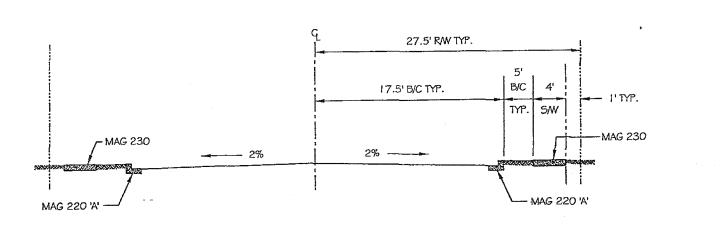


CITY OF CHANDLER STANDARD DETAIL

LOCAL STREET WITH MEDIAN TYPICAL CROSS SECTION

APPROVED Cliebeth listens
OCITY ENGINEER
DATE Aman 11, 2002

DETAIL NO **C-211**



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2" OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE OR BOTH SIDES OF ROADWAY.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.
- 6. ALLOWED FOR MULTI-FAMILY DEVELOPMENTS, OR SINGLE FAMILY RESIDENTIAL DEVELOPMENTS WITH FRONTAGES LESS THAN 65'.
- 7. DUCTILE IRON WATER LINE UNDER STREET; METERS BACK OF WALK.

C-212

REPLACES
27A

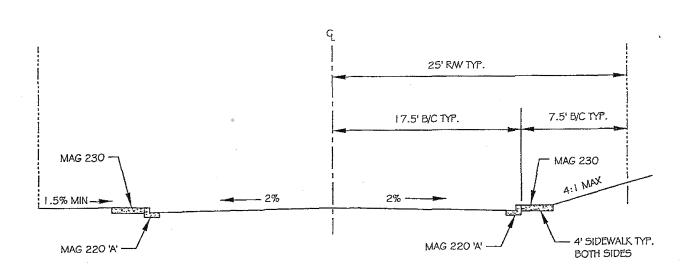
CITY OF
CHANDLER
STANDARD
DETAIL
TYPICAL CROSS SECTION

LOCAL BOULEVARD
APPROVED: DATE: //-/9-99

DETAIL NO.
C-212

DATE: //-/9-99

NTS

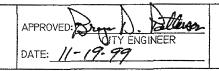


- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-242.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.
- 6. IF ALL ABUTTING LOT FRONTAGES EXCEED 65', STREET WIDTH MAY BE REDUCED TO 32' (B.C.) AND ROW WIDTH MAY BE REDUCED TO 42'.
- 7. IF ALL ABUTTING LOT FRONTAGES EXCEED 90', STREET WIDTH MAY BE REDUCED TO 29' (B.C.) AND ROW WIDTH MAY BE REDUCED TO 42'.

C-213
REPLACES
27B

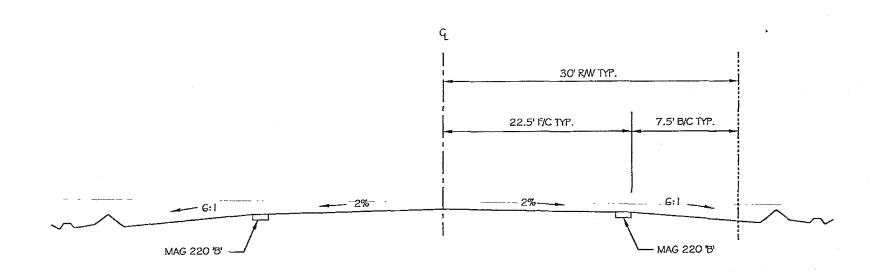


LOCAL STREET
TYPICAL CROSS SECTION



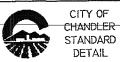
DETAIL NO.

C-213



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2" OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

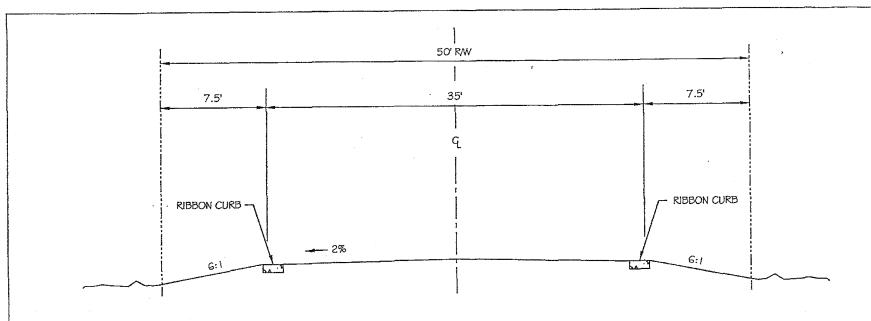
C-214 REPLACES 28



AGRARIAN COLLECTOR STREET
TYPICAL CROSS SECTION

APPROVED: CITY ENGINEER
DATE: 11-19-99

C-214



- 1. CONCRETE:
 - A. CURBING SHALL CONFORM TO MAG STANDARD DETAIL 220 TYPE 'B'.
- 2. SUBGRADE:
 - A. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 3. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-242.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 4. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2 INCHES OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

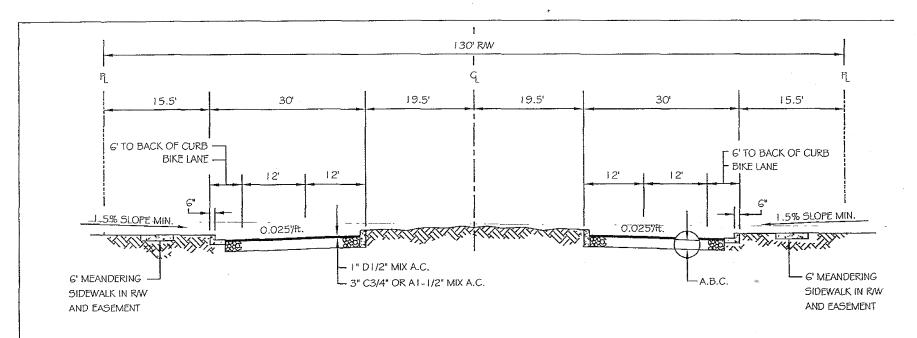
C-215 REPLACES 29



AGRARIAN LOCAL STREET
TYPICAL CROSS SECTION

APPROVED: CTY ENGINEER
DATE: 1/-19-97

C-215

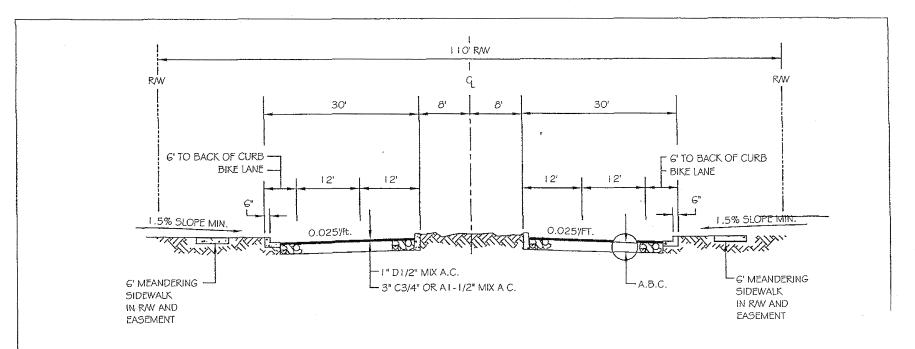


- 1. CONCRETE
 - A. CURB AND GUTTER MAG STANDARD DETAIL 220 TYPE 'A'.
 - B. MEDIAN CURB AND GUTTER MAG STANDARD DETAIL 222 TYPE 'A'.
 - C. SIDEWALK MAG STANDARD DETAIL 230.
 - D. ALL CONCRETE TO BE MAG STANDARD SPECIFICATION CLASS 'B'.
- 2. PAVING
 - A. AGGREGATE BASE COURSE
 - 1. THICKNESS COC STANDARD DETAIL C-239
 - 2. MATERIAL CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS.
 - B. ASPHALTIC CONCRETE
 - 1. THICKNESS FOUR (4) INCH MINIMUM.
 - 2. MATERIAL 2-1/2" OF EVAC A19 OR A25 AND 1-1/2" OF A12.5 FOR WEAR COURSE.

C-216
REPLACES
105

CITY OF
CHANDLER
STANDARD
DETAIL

OCOTILLO MAJOR ARTERIAL
DATE: DATE:



- I CONCRETE
 - A. CURB AND GUTTER MAG STANDARD DETAIL 220 TYPE 'A'. TYPE 222A FOR MEDIAN.
 - B. SIDEWALK MAG STANDARD DETAIL 230.
 - C. ALL CONCRETE TO BE MAG STANDARD SPECIFICATION CLASS 'B'.
- 2. PAVING
 - A. AGGREGATE BASE COURSE
 - 1. THICKNESS COC STANDARD DETAIL C-239
 - 2. MATERIAL CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS.
 - B. ASPHALTIC CONCRETE
 - 1. THICKNESS FOUR (4) INCH MINIMUM.
 - 2. MATERIAL EVAC 2-1/2" OF A 1 9 OR A 25 WITH 1-1/2" OF A 1 2.5 FOR WEAR COURSE.

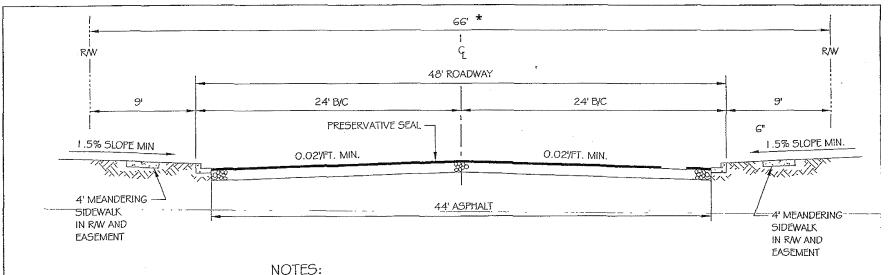
C-217 REPLACES 106



OCOTILLO MINOR ARTERIAL

APPROVED LINGH HE YOU DATE: AMARA 11, 2002

C-217





- A. CURB AND GUTTER MAG STANDARD DETAIL 220 TYPE 'A'.
- B. SIDEWALK MAG STANDARD DETAIL 230.
- C. ALL CONCRETE TO BE MAG STANDARD SPECIFICATION CLASS 'B'.

2. PAVING

- A. AGGREGATE BASE COURSE
 - 1. THICKNESS CITY OF CHANDLER STANDARD DETAIL C-240
 - 2. MATERIAL CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS.
- B. ASPHALTIC CONCRETE PAVEMENT MIX DESIGNS PER EAST VALLEY ASPHALT COMMITTEE (E.V.A.C.):
 - 1. THICKNESS FOUR (4) INCH MINIMUM.
 - 2. MATERIAL 2-1/2" OF A-19 OR A-25 FOR BASE AND 1-1/2" OF A-12.5 FOR SURFACE COURSE.
- C. PRESERVATIVE SEAL CONFORMING TO MAG STANDARD SPECIFICATION 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 717.
- 3. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY.

C-218 REPLACES 108

RW

ARTERIAL

130' RW

CITY OF CHANDLER STANDARD DETAIL

RW

331

301

R/W

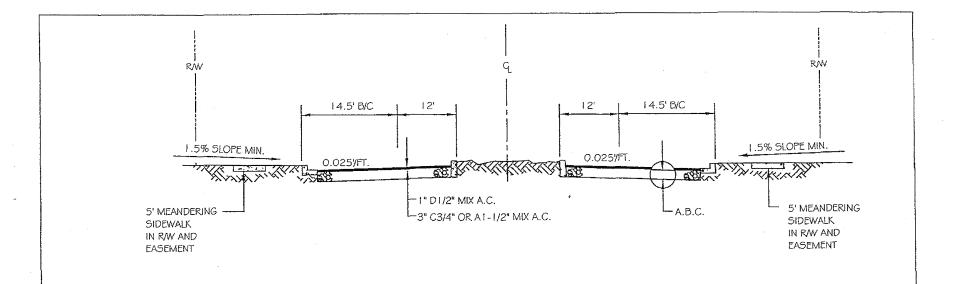
33'

33'

RW

OCOTILLO COLLECTOR STREET

DETAIL NO.



- I. CONCRETE
 - A. CURB AND GUTTER MAG STANDARD DETAIL 220 TYPE 'A'. TYPE 222A FOR MEDIAN
 - B. SIDEWALK MAG STANDARD DETAIL 230
 - C. ALL CONCRETE TO BE MAG STANDARD SPECIFICATION CLASS 'B'
- 2. PAVING
 - A. AGGREGATE BASE COURSE
 - 1. THICKNESS CITY OF CHANDLER STANDARD DETAIL C-239
 - 2. MATERIAL CONFORMING TO SECTION 702.2 MAG STANDARD SPECIFICATIONS
 - B. ASPHALTIC CONCRETE
 - 1. THICKNESS FOUR (4) INCH MINIMUM
 - 2. MATERIAL 2-1/2" OF EVAC A 19 OR A25 FOR BASE W/ 1-1/2" OF A 12.5 FOR WEAR COURSE.

C-219 REPLACES 109

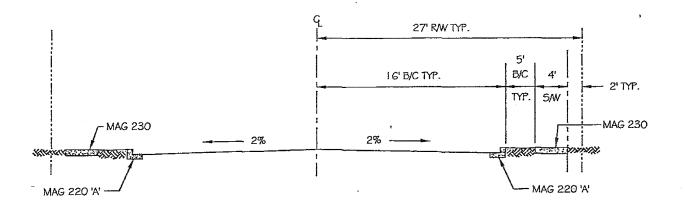


OCOTILLO ENTRY ROAD

APPROVED Line beth live S DATE: January 11, 2002

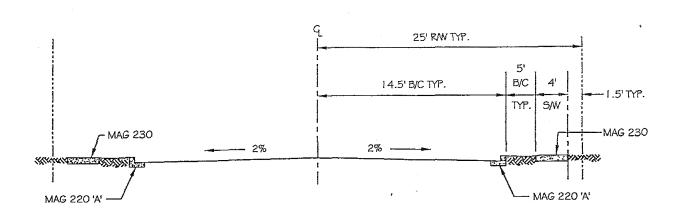
DETAIL NO.

C-219



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2" OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE 55-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE OR BOTH SIDES OF ROADWAY.
- 5. 0,2% MINIMUM LONGITUDINAL GRADE ALLOWED.
- 6. ALLOWED ONLY FOR SINGLE FAMILY RESIDENTIAL DEVELOPMENTS WITH FRONTAGES OF 65' TO 90'.
- 7. DUCTILE IRON WATER LINE UNDER STREET; METERS BACK OF WALK.

DETAIL NO.	CITY OF	LOCAL BOULEVARD	APPROVED: Bran D. Lattergon	DETAIL NO.
C-221	CHANDLER STANDARD	WITH FRONTAGES OF 65' TO 90'	dTY ENGINEER	C-221
NTS	DETAIL	TYPICAL CROSS SECTION	DATE: //-/9-97	NTS



- 1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
- 2. BASE COURSE:
 - A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-241 FOR RESIDENTIAL AREAS AND COC STANDARD DETAIL C-240 FOR ALL OTHER AREAS.
 - B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
- 3. ASPHALTIC CONCRETE PAVEMENT:
 - A. THE THICKNESS SHALL BE A MINIMUM OF 2" OF C3/4" MIX EVAC.
 - B. A PRESERVATIVE SEAL COAT CONFORMING TO MAG STANDARD SPECIFICATIONS 334, AND SHALL BE EMULSIFIED ASPHALT GRADE SS-1 H PER MAG STANDARD SPECIFICATIONS, SEC. 713.
 - C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
- 4. WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE OR BOTH SIDES OF ROADWAY.
- 5. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.
- 6. ALLOWED ONLY FOR SINGLE FAMILY RESIDENTIAL DEVELOPMENTS WITH FRONTAGES GREATER THAN 90'.
- 7. DUCTILE IRON WATER LINE UNDER STREET; METERS BACK OF WALK.

DETAIL NO.

C-222

NTS

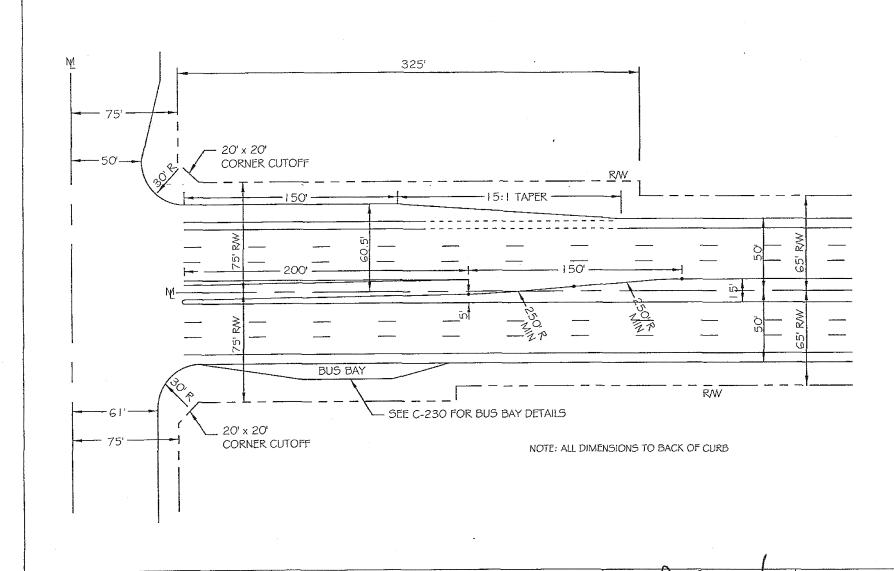
CITY OF CHANDLER STANDARD DETAIL LOCAL BOULEVARD
WITH FRONTAGES GREATER THAN 90'
TYPICAL CROSS SECTION

APPROVED: OTY ENGINEER

DATE: 11-19-99

DETAIL NO.

C-222



DETAIL NO. C-223

CITY OF CHANDLER STANDARD DETAIL

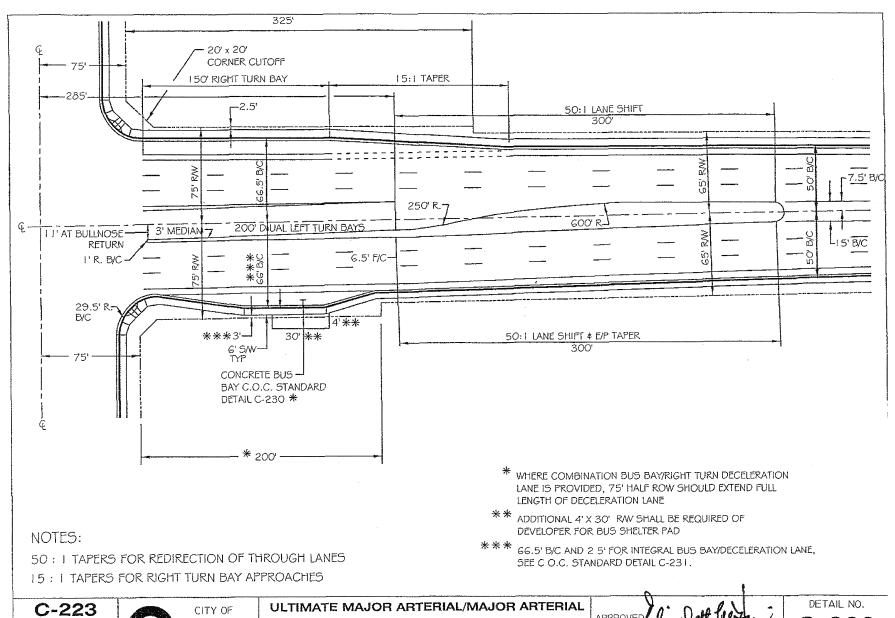
STANDARD MAJOR ARTERIAL/MAJOR ARTERIAL

INTERSECTION RIGHT-OF-WAY, AND STREET DIMENSIONS

DETAIL NO.

OTY ENGINEER

PAGE | OF 2



REPLACES 18A

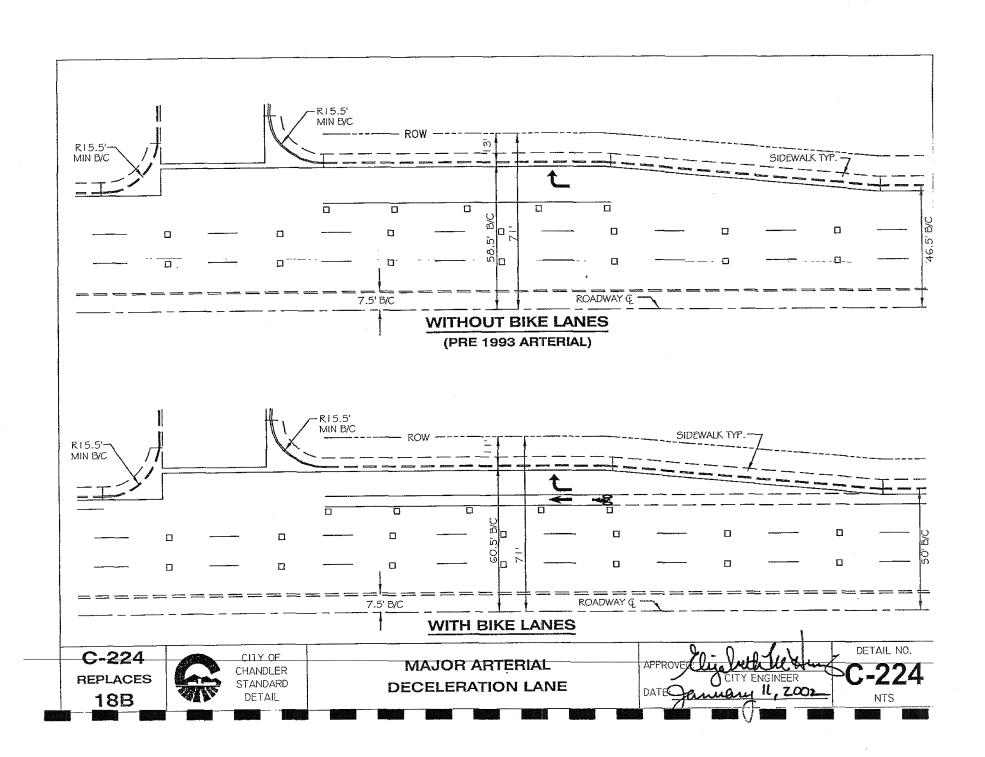


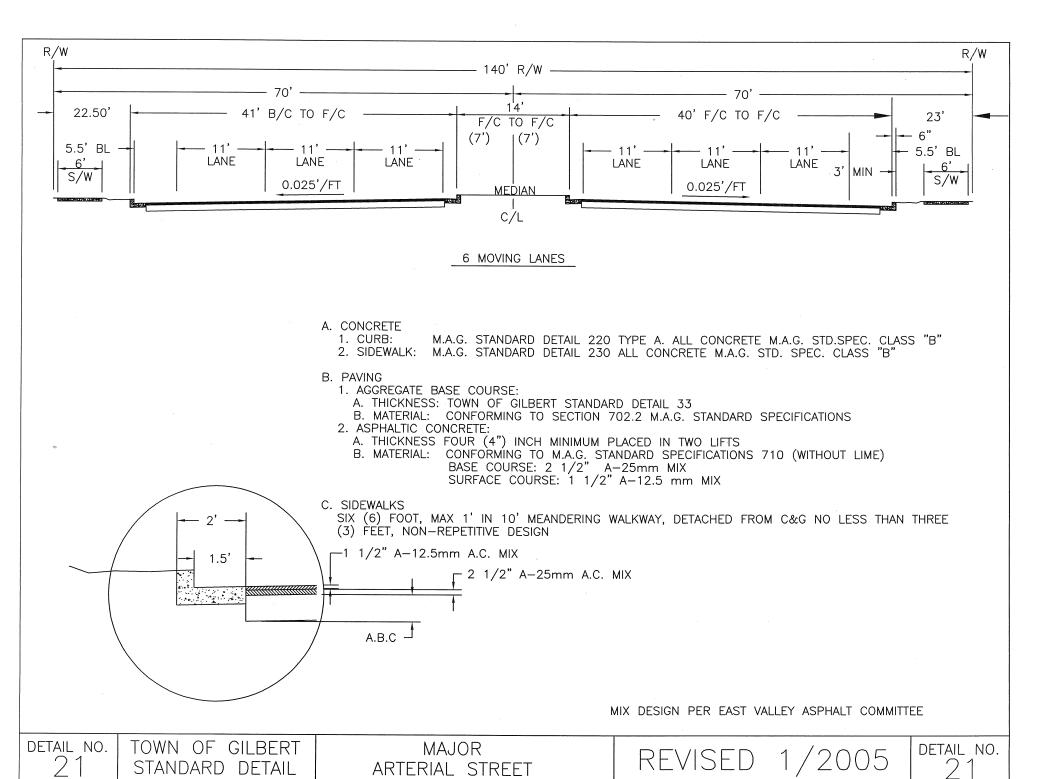
CHANDLER STANDARD DETAIL

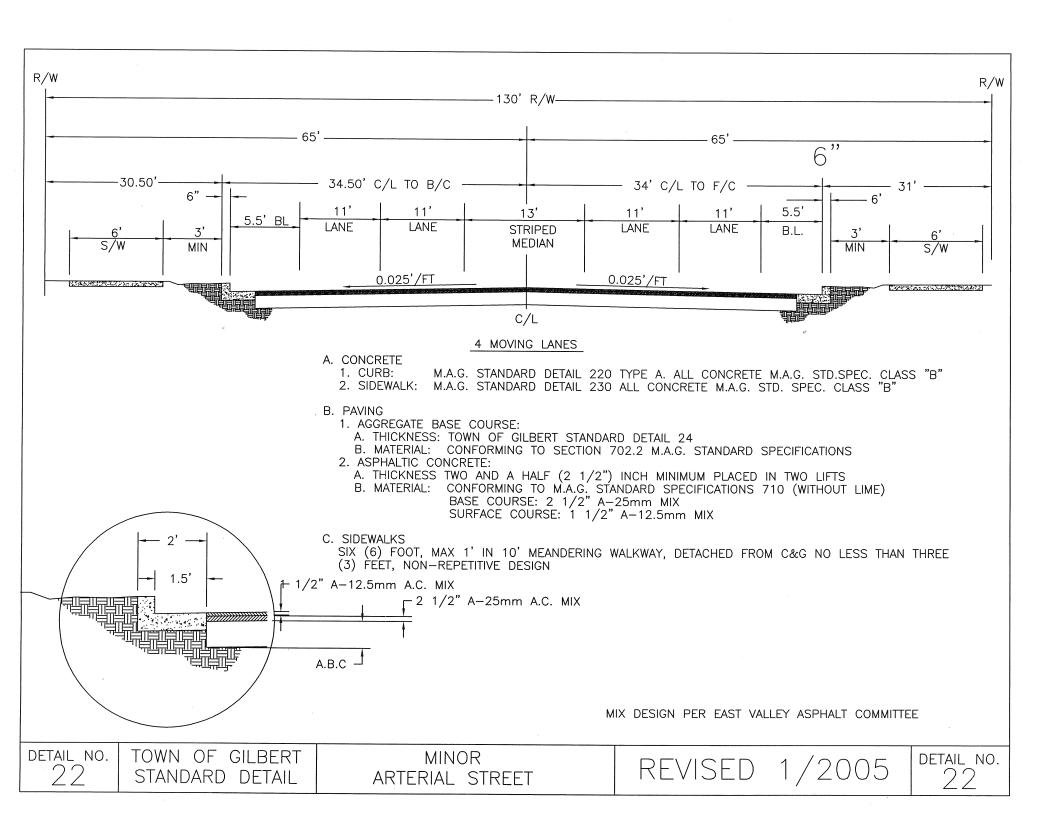
INTERSECTION RIGHT-OF-WAY, STREET DIMENSIONS

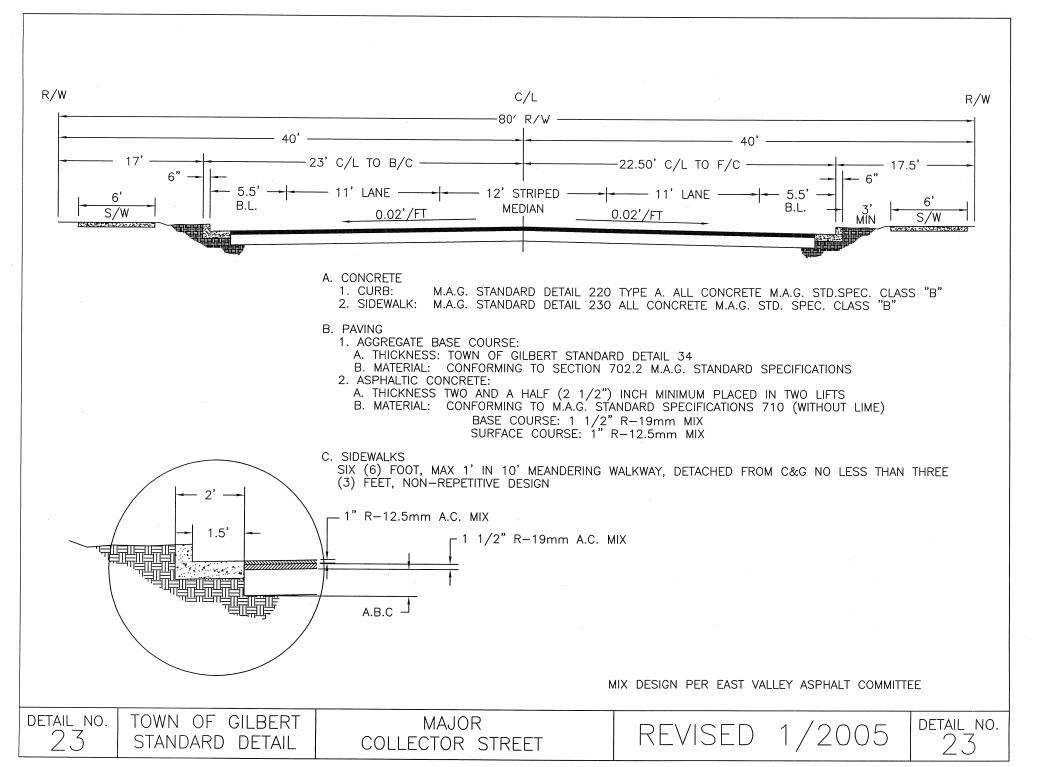
2002

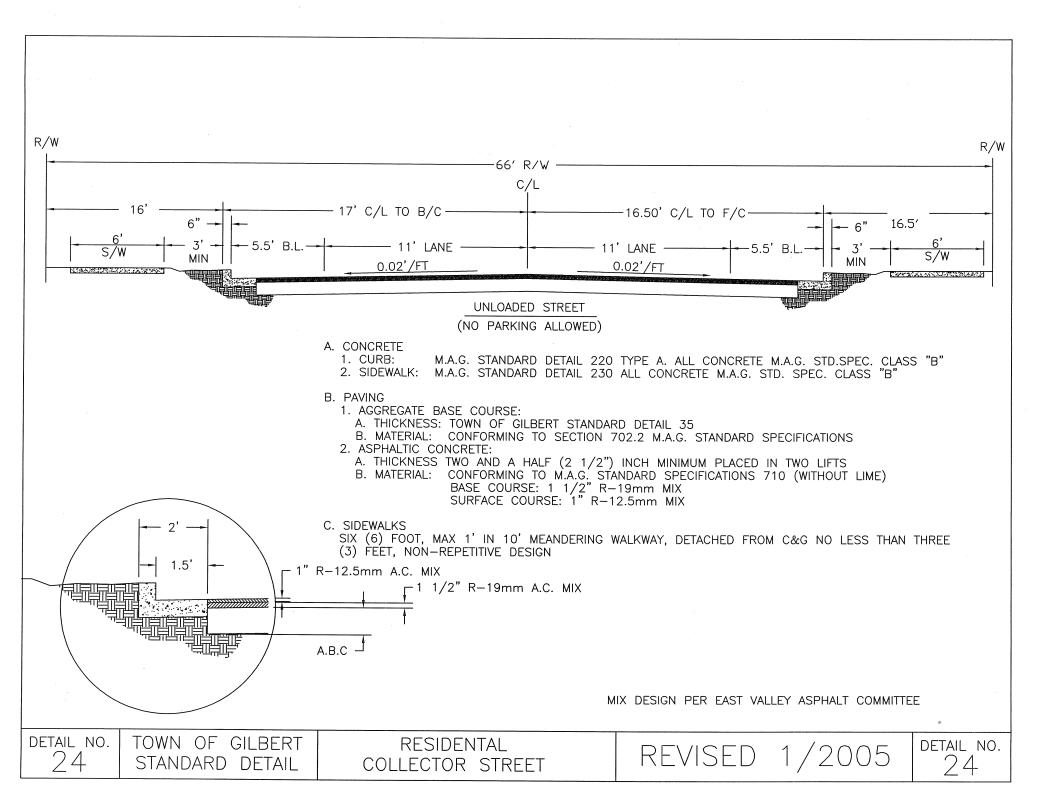
PAGE 2 OF 2

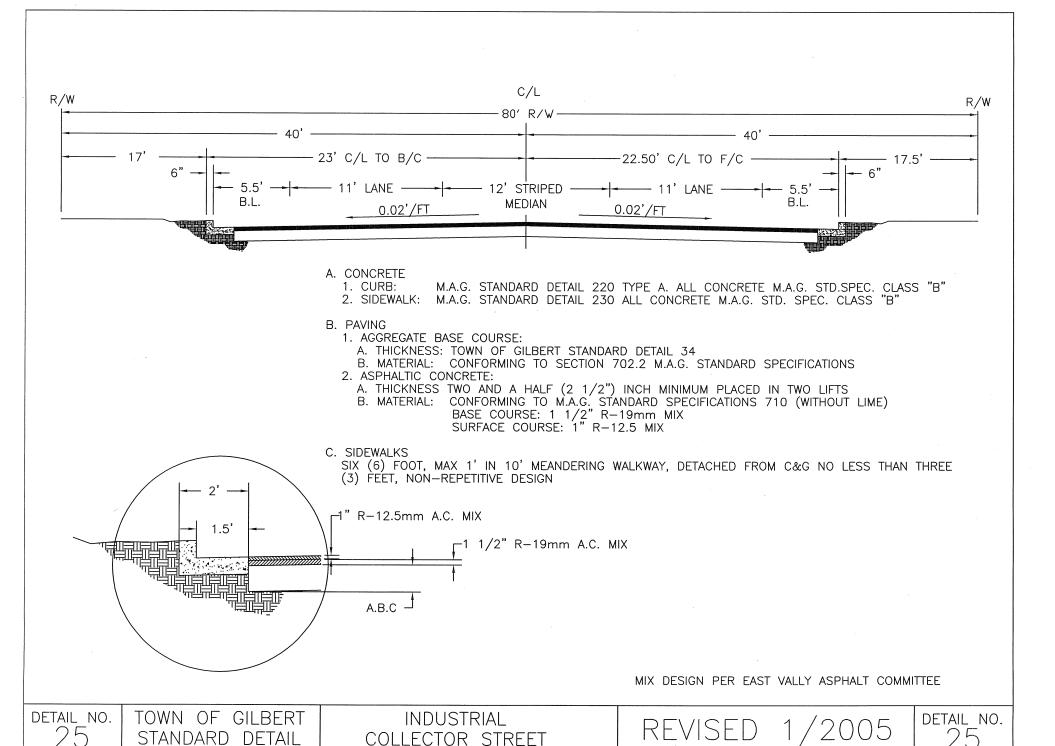


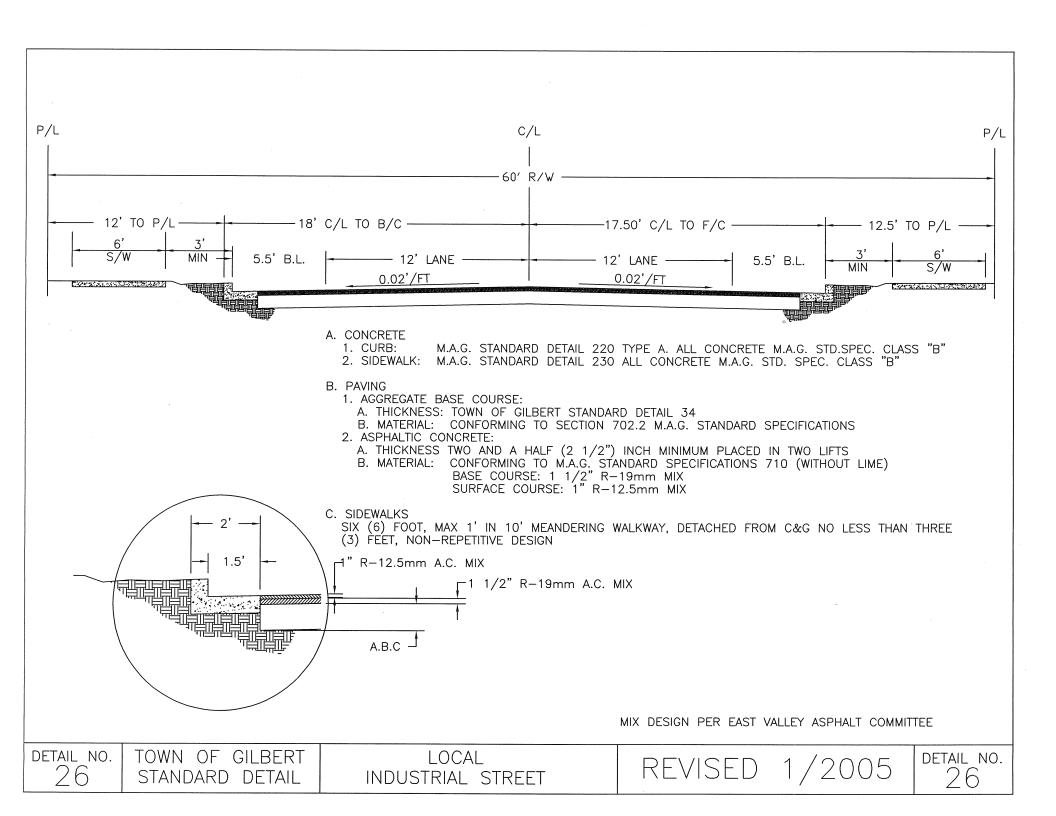


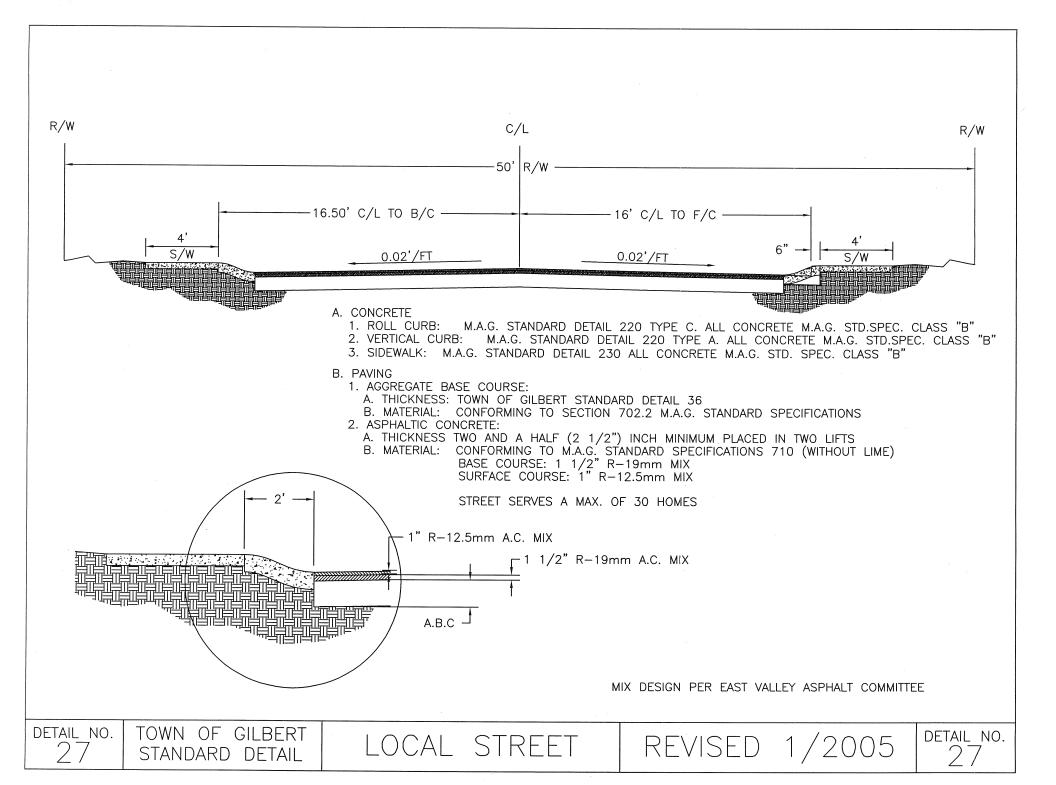


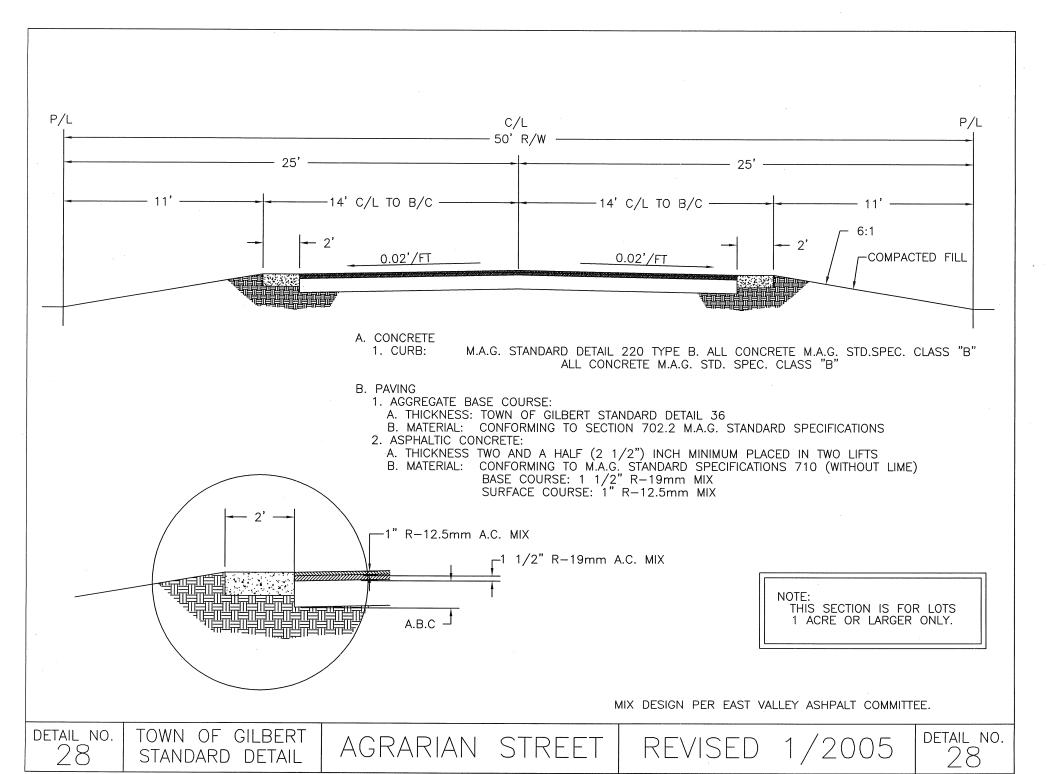










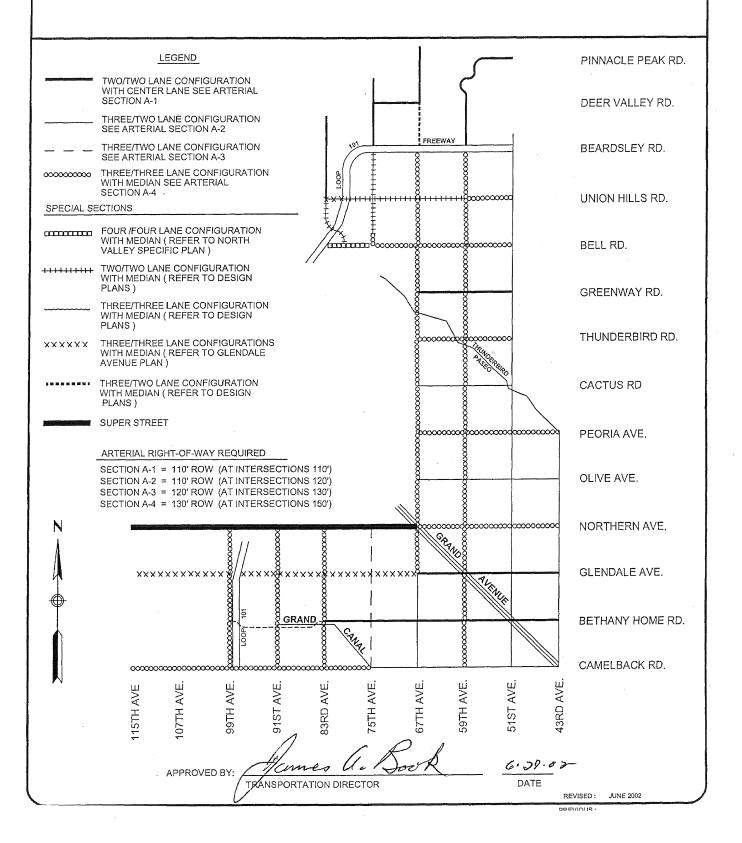


STANDARD DETAIL G-300

CITY OF GLENDALE TRANSPORTATION



ARTERIAL STREET SECTION AND RIGHT-OF-WAY MAP

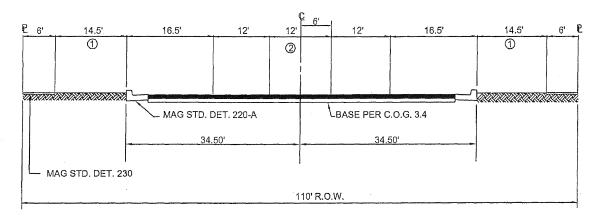


CITY OF GLENDALE ENGINEERING



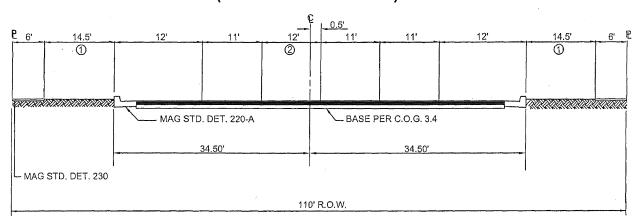
ARTERIALS W/4 LANES AND TURN LANES MAJOR ARTERIALS W/6 LANES

ARTERIAL SECTION A-1 (SEE PARA. 4.12.A.)



- 1 VARIES, 7 FOOT MINIMUM FOR LANDSCAPING.
- ② CENTER TURN LANE; 12 FOOT MEDIAN IS OPTIONAL ON ARTERIALS AND MANDATORY ON MAJOR ARTERIALS.

ARTERIAL SECTION A-2 (SEE PARA. 4.12.B.)



1 VARIES, 7 FOOT MINIMUM FOR LANDSCAPING.

© CENTER TURN LANE; 12 FOOT MEDIAN IS OPTIONAL.
ON ARTERIALS AND MANDATORY ON MAJOR OF ERIALS
AND MANDATORY ON MAJOR OF ERIALS
AND MANDATORY ON MAJOR OF ERIALS

APPROVED BY:

CITY ENGINEER

10/28/02

REVISED: JUNE 2002

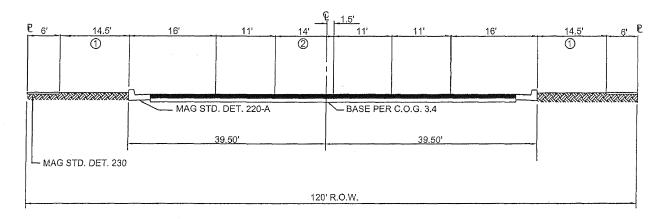
PREVIOUS:

CITY OF GLENDALE **ENGINEERING**



ARTERIALS OR MAJOR ARTERIALS

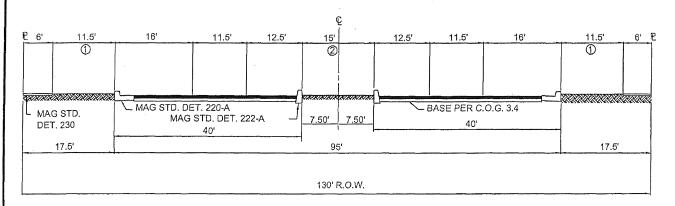
ARTERIAL SECTION A-3 (SEE PARA. 4.12.C.)



① VARIES, 7 FOOT MINIMUM FOR LANDSCAPING. ② CENTER TURN LANE; 15 FOOT RAISED MEDIAN MAY BE

REQUIRED BY CITY OF GLENDALE ON ARTERIALS AND MANDATORY ON MAJOR ARTERIALS

MAJOR ARTERIAL SECTION A-4 (SEE PARA. 4.12.D.)



of Broyles

① VARIES, 7 FOOT MINIMUM FOR LANDSCAPING. ② RAISED MEDIAN IS REQUIRED ON MAJOR ARTERIALS

APPROVED BY:

CITY ENGINEER

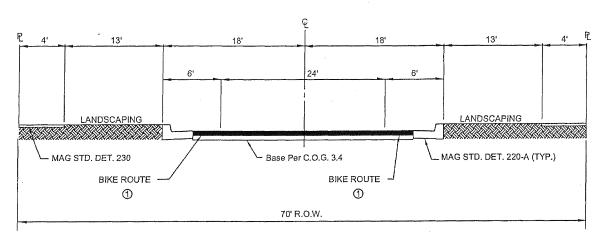
REVISED: JUNE 2002

CITY OF GLENDALE ENGINEERING



STANDARD SINGLE FAMILY RESIDENTIAL COLLECTOR STREETS

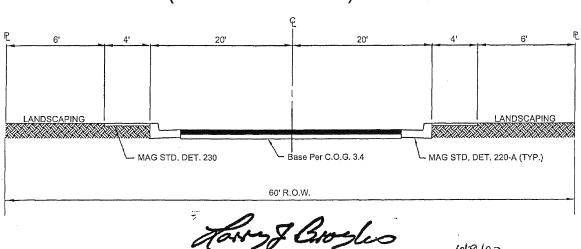
COLLECTOR SECTION C-1 (SEE PARA. 4.14.A.)



① OPTIONAL; AS REQUIRED BY THE ADOPTED BIKE PLAN OR CITY TRANSPORTATION DIRECTOR.

APPROVED BY:

COLLECTOR SECTION C-2 (SEE PARA. 4.14.B.)



CITY ENGINEER

DATE

REVISED: JUNE 2002

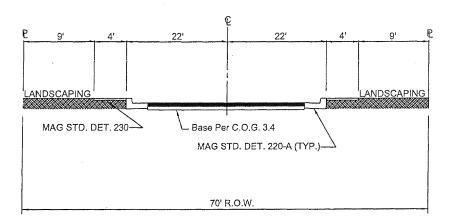
CITY OF GLENDALE ENGINEERING



STANDARD COMMERCIAL/INDUSTRIAL/MULTIFAMILY COLLECTOR STREETS

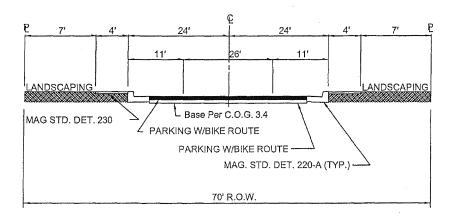
COLLECTOR SECTION C-3

(SEE PARA. 4.14.C.)



COLLECTOR SECTION C-4

(SEE PARA. 4.14.D.)



APPROVED BY:

CITY ENGINEER

6/28/02

DATE

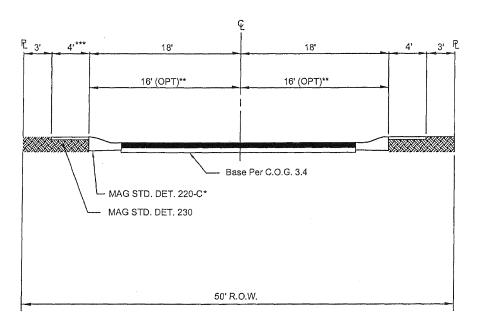
REVISED: JUNE 2002

CITY OF GLENDALE **ENGINEERING**



LOCAL STREET SECTION

LOCAL SECTION (SEE PARA. 4.16)



^{*} MAY USE MAG 220-A IF REQUIRED TO SATISFY DRAINAGE REQUIREMENTS.

J Brogles

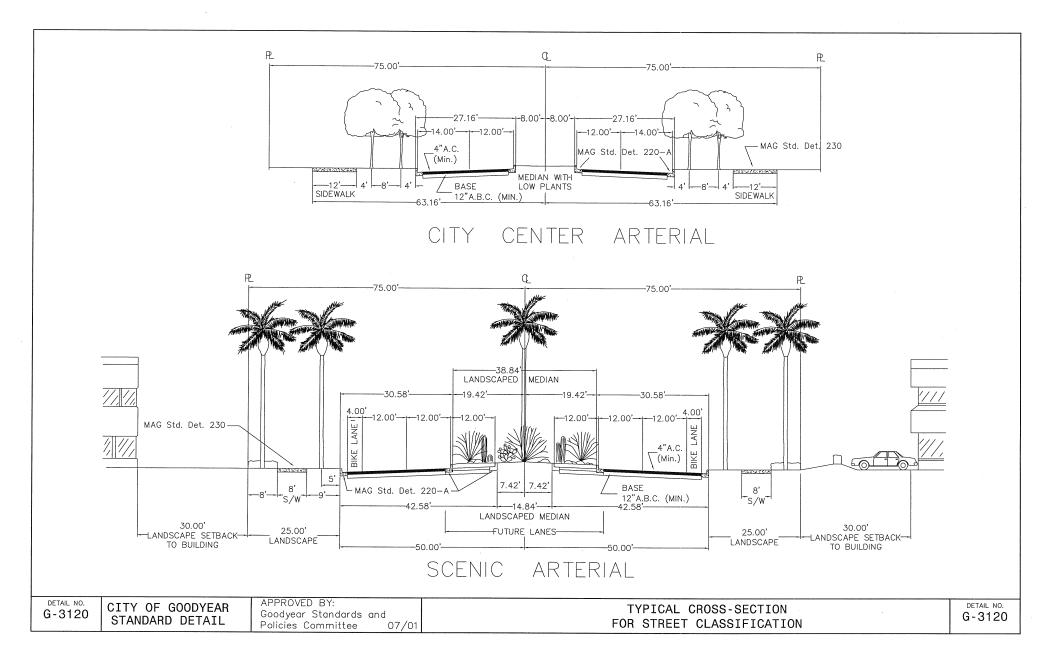
APPROVED BY:

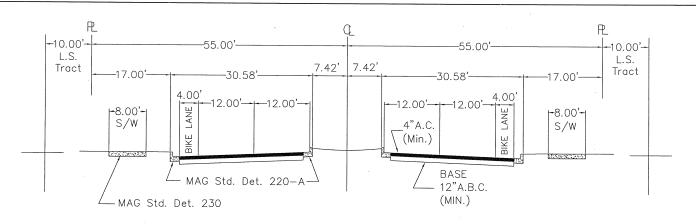
6/28/02 DATE

REVISED: JUNE 2002

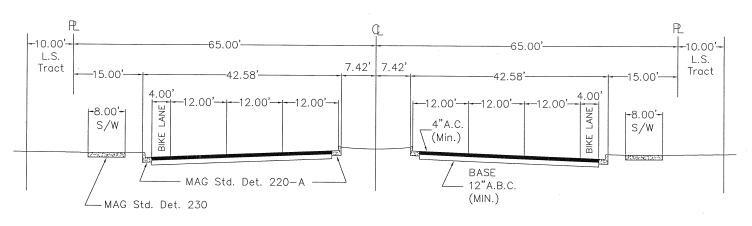
^{**} REDUCED PAVEMENT WIDTH MAY BE ALLOWED IN SINGLE FAMILY RESIDENTIAL AREAS IF APPROVED IN WRITING BY THE CITY ENGINEER AND CITY TRANSPORTATION DIRECTOR.

^{***} SIDEWALK MAY BE DETACHED 3' BACK OF CURB IF REQUIRED





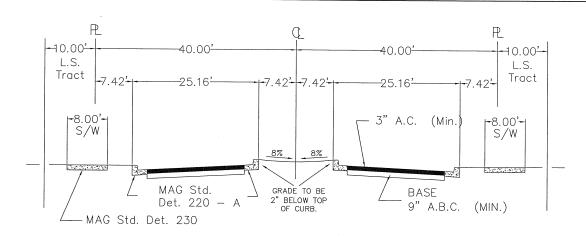
ARTERIAL STREET WITH BIKE LANE



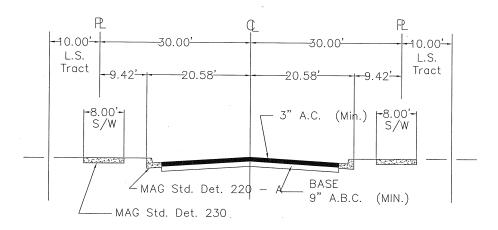
MAJOR ARTERIAL STREET WITH BIKE LANE

DETAIL NO.	C
G-3122	(U
0-3122	S

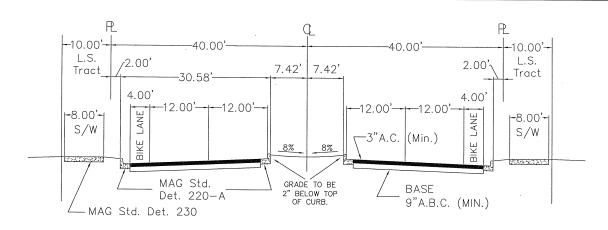
TY	/PICAL	CROSS-SECTION
OR	STREET	CLASSIFICATION



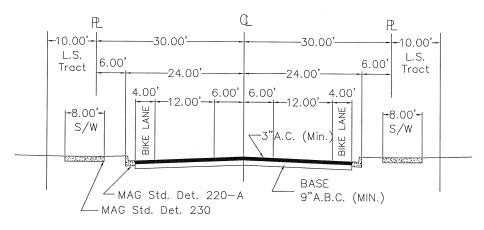
MAJOR COLLECTOR ROAD - WITH BIKE PATH



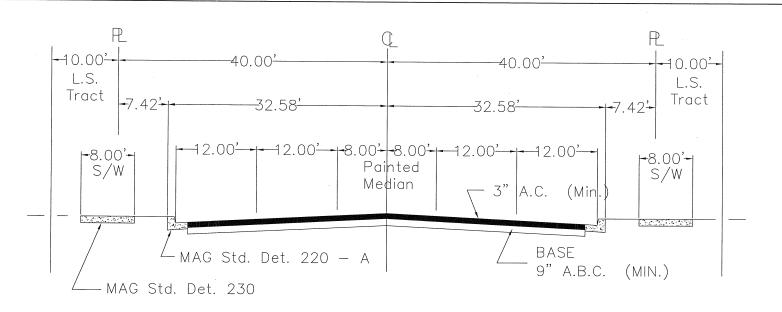
MINOR COLLECTOR ROAD - WITH BIKE PATH



MAJOR COLLECTOR ROAD - WITH BIKE LANE



MINOR COLLECTOR ROAD - WITH BIKE LANE



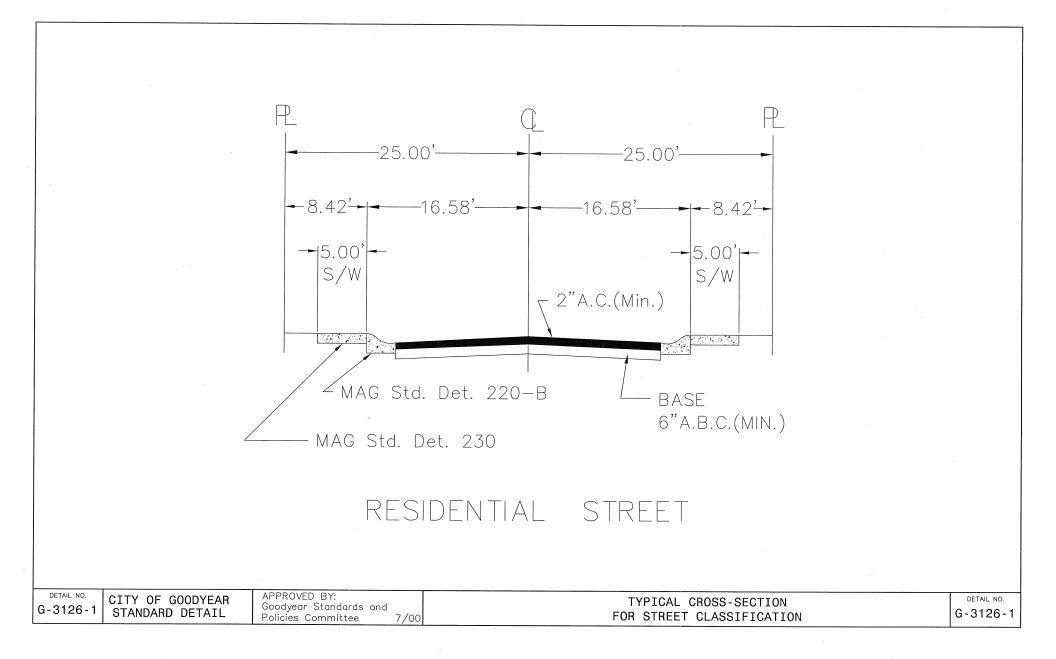
MAJOR COLLECTOR SPECIAL USE ROAD - WITH BIKE PATH

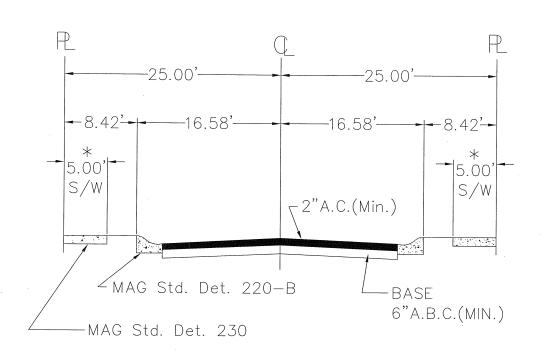
NOTE: FOR USE IN INDUSTRIAL AREAS ONLY.

APPROVAL OF PUBLIC WORKS

DIRECTOR REQUIRED.

DETAIL NO. CITY OF COORVEAR	APPROVED BY:		
G-3124-3 OITY OF GOODYEAR	Goodyear Standards and	TYPICAL CROSS-SECTION	DETAIL NO.
STANDARD DETAIL	Policies Committee 7/97	FOR STREET CLASSIFICATION	G-3124-3
	<u> </u>		





RESIDENTIAL STREET WITH DETACHED SIDEWALK

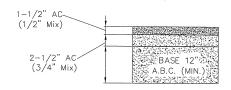
* NOTE: 5' SIDEWALK MAY ENCROACH UP TO 1' INTO THE P.U.E. ADJACENT TO THE RIGHT-OF-WAY, IN WHICH CASE A 9' P.U.E. SHALL BE REQUIRED UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

DETAIL NO. G-3126-2 CITY OF GOODYEAR STANDARD DETAIL

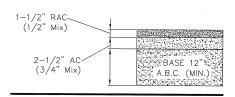
APPROVED BY: Goodyear Standards and Policies Committee 7/00

TYPICAL CROSS-SECTION FOR STREET CLASSIFICATION G-3126-2

ARTERIAL STREETS

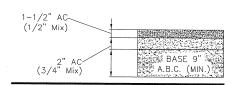


AC PAVEMENT SECTION

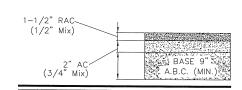


AC PAVEMENT SECTION WITH RAC OVERLAY

COLLECTOR STREETS

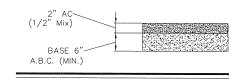


AC PAVEMENT SECTION



AC PAVEMENT SECTION WITH RAC OVERLAY

LOCAL RESIDENTIAL STREETS



AC PAVEMENT SECTION

DETAIL NO. G-3128

CITY OF GOODYEAR STANDARD DETAIL

APPROVED BY:
Goodyear Standards and
Policies Committee 04/0

PAVEMENT SECTIONS

DETAIL NO. G-3128

NOTES

- ALL STREETS TO BE CONSTRUCTED WITH A STRAIGHT CROWN AT A 2% CROSS SLOPE.
- 2. WHERE 10" A.B.C. IS REQUIRED, IT IS TO BE INSTALLED IN (2) TWO EQUAL LAYERS.
- 3. A.B.C. FILL TO CONFORM TO SUBSECTION 702.2 (AGGREGATE BASE).
- 4. ASPHALT CONCRETE SHALL CONFORM TO THE EAST VALLEY ASPHALT CRITERIA, 1996 EDITION AND BE APPROVED BY THE EVA COMMITTEE.
- 5. FINISH ELEVATION OF THE ADJACENT PARKWAY SHALL BE 1" BELOW THE TOP OF SIDEWALK FOR A MINIMUM DISTANCE OF 3-FEET. BEYOND THE 3-FEET, THE SLOPE SHALL NOT EXCEED 6:1.
- 6. ALL LOCAL STREETS ADJACENT TO SCHOOLS SHALL RECEIVE 6" A.B.C. FILL IN LIEU OF 4" ABC.
- 7. SURFACE TREATMENT SHALL BE APPLIED AS FOLLOWS: ON "A" ASPHALT MIXES, APPLY GRADE SS-1h FOG SEAL IN ACCORDANCE WITH MAG SECTION 333 AT A RATE OF .1 GAL. PER SQ. YARD OR AS OTHERWISE DIRECTED BY THE CITY REPRESENTATIVE.

ON "R" ASPHALT MIXES, APPLY A POLYMER-LATEX MODIFIED ASPHALTIC EMULSION MEETING C.O.M. REQUIREMENTS, AT A RATE OF .1 GAL. PER SQ. YARD OR AS OTHERWISE DIRECTED BY THE ENGINEER. SEE MESA AMENDMENTS FOR SPECIFICATIONS.

8. UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO APPLICATION OF SURFACE TREATMENT.

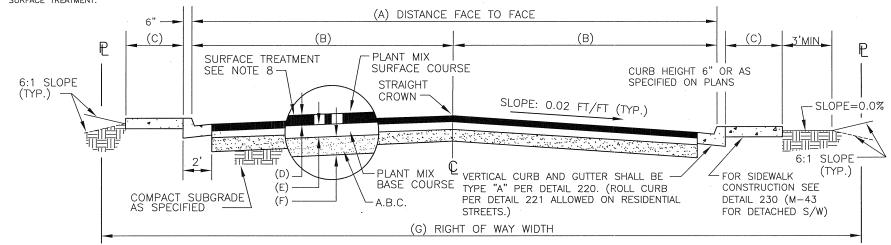
PAVEMENT TABLE

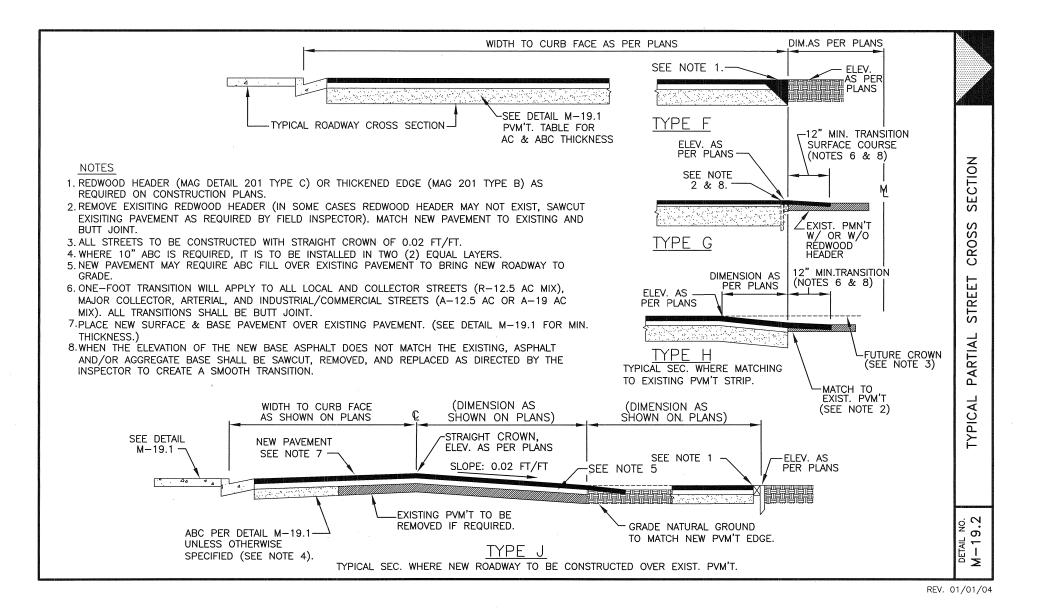
		ROADWAY (WIDTH)		ŞIDEWALK		BASE	A.B.C. FILL	RIGHT OF
		FACE TO FACE	CL TO FACE	(WIDTH)	(DEPTH) (TYPE)	(DEPTH) (TYPE)	(DEPTH)	WAY (WIDTH)
		(A)	(B)	(C)	(D)	(E)	(F)	(G)
	LOCAL STREET RESIDENTIAL LAND USE	34'	17'	4'	1 1/2" R-12.5 **	2" R-25	4" SEE NOTE 6	50'
	COLLECTOR STREET	34'/40'/46'	17'/20'/23'	6'	1 1/2" R-12.5 **	2" R-25	6"	80'/80'/80'
	MAJOR COLLECTOR STREET *	68'	34'	6'	2 1/2" A-19 **	3" A-19	10" SEE NOTE 2	110'
	ARTERIAL STREET *	68'/88'/94' ***	34'/44'/47'	6	2 1/2" A-19 **	3" A-19	10" SEE NOTE 2	110' TO 130' ***
[11	LOCAL STREET NDUSTR/COMM LAND USE	40' TO 46'	20' TO 23'	4'	1 1/2" A-12.5 **	3" A-19	10" SEE NOTE 2	60' TO 80'

* DETACHED, LINEAR SIDEWALKS ARE REQUIRED. SEE DETAIL M-43.

** SEE NOTE 7

*** MAY BE WIDER AT INTERSECTIONS AND TURN LANES — SEE M-46.1 & M-46.2.





NOTES

- 1.ALL STREETS TO BE CONSTRUCTED WITH A STRAIGHT CROWN OF 0.02 FT/FT.
- 2.A.B.C. BASE TO CONFORM TO M.A.G. SUBSECTION 702.2 (AGGREGATE BASE).
- 3.ASPHALT CONCRETE SHALL CONFORM TO THE EAST VALLEY ASPHALT CRITERIA, 1996 EDITION AND BE APPROVED BY THE EVA COMMITTEE.
- 4.ALL INTERSECTION RETURNS SHALL HAVE A 20-FOOT BACK OF CURB RADIUS, 4-INCH VERTICAL CURB BETWEEN RADIUS POINTS, AND A 5-FOOT TRANSITION (SIMILAR TO M.A.G. DETAIL 221) TO RIBBON CURB.
- 5.SURFACE TREATMENT SHALL BE APPLIED AS FOLLOWS:

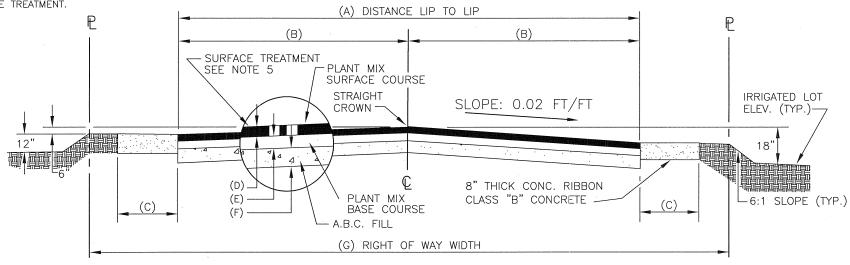
 ON "A" ASPHALT MIXES, APPLY GRADE SS-1h FOG SEAL IN
 ACCORDANCE WITH MAG SECTION 333 AT A RATE OF .1 GAL. PER SQ.
 YARD OR AS OTHERWISE DIRECTED BY THE ENGINEER.

 ON "R" ASPHALT MIXES, APPLY A POLYMER MODIFIED EMULSION
 MEETING C.O.M. REQUIREMENTS, AT AT RATE OF .1 GAL. PER SQ. YARD
 OR AS OTHERWISE DIRECTED BY THE ENGINEER. SEE MESA
 AMENDMENTS FOR SPECIFICATIONS.

PAVEMENT TABLE

ROADWAY (WIDTH)		RIBBON (WIDTH)	A.C.SURFACE COURSE (DEPTH)	A.C.BASE COURSE (DEPTH)	A.B.C.BASE (DEPTH)	RIGHT OF WAY
LIP TO LIP	CL TO LIP	(C)	(TYPE)	(TYPE) (E)	(F)	(WIDTH)
31'	15.5'	2'	1 1/2" R-12.5 SEE NOTE 5	2" R-25	4"	50'

6.UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO APPLICATION OF SURFACE TREATMENT.



REV. 2/01/02

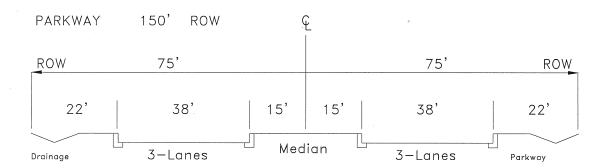
PEORIA DETAIL 291 PARKWAY SECTION



APPROVALS:

CITY ENGINEER

DATE



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07/02/98

PEORIA DETAIL 292 MAJOR ARTERIAL STREET

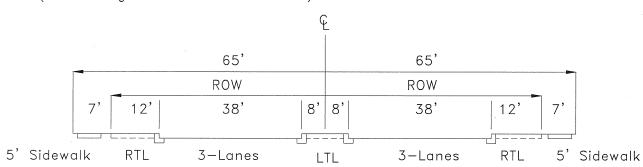


APPROVALS:

CITY ENGINEER

DATE

MULTI-LANE ROADWAY 130' ROW Divided - 6 Travel Lanes (6-Plus Right and Left Turn Lanes)



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PEORIA DETAIL 293 MINOR ARTERIAL STREET

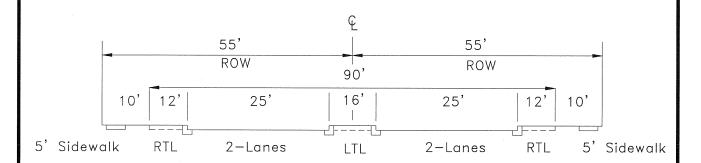


APPROVALS:

CITY ENGINEER

DATE

MULTI-LANE ROADWAY 110' ROW Divided - 4 Travel Lanes (4-Plus Right and Left Turn Lanes)



GUIDE\DETAILS\293.D

PEORIA DETAIL 294 MAJOR COLLECTOR ROADWAYS

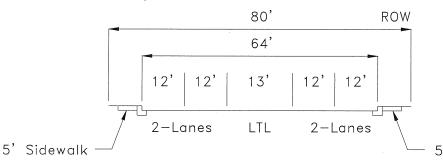


APPROVALS:

CITY ENGINEER

DATE

FOUR-LANE ROADWAY Undivided (Residential areas with backage and adjacent commercial and industrial areas)



Note: Corner radii will equal 30'

I:\GUIDE\DETAILS\294.DWG

Sidewalk

PEORIA DETAIL 295 MAJOR SECONDARY COLLECTOR

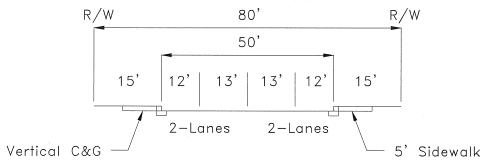


APPROVALS:

CITY ENGINEER

DATE

FOUR-LANE ROADWAY Undivided (Residential areas with backage)



Note: Corner radii will equal 25'-30' An additional 10' of pavement will be required if designated as a secondary bike route.

PEORIA DETAIL 296 INDUSTRIAL/COMMERCIAL/MULTI-FAMILY ROADWAY

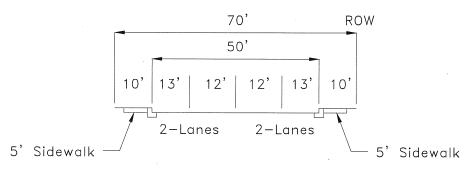


APPROVALS:

CITY ENGINEER

DATE

FOUR—LANE ROADWAY Undivided (Commercial, industrial and high density multi—family areas)



Note: Corner radii will equal 25'-30'

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STANDARD DETAIL 297 MINOR COLLECTOR ROADWAYS

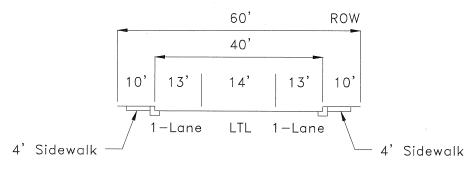


APPROVALS:

CITY ENGINEER

DATE

TWO-LANE ROADWAY Undivided-No Parking (Residential areas with backage)



Notes:

Corner radii will equal 25'. On desiganated bicycle routes, an additional 10' of R.O.W. and paving will be required.

PEORIA DETAIL 298 LOCAL ROADWAYS

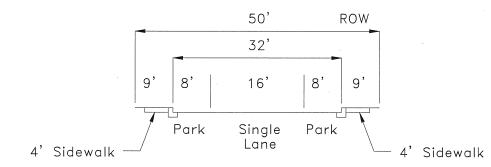


APPROVALS:

CITY ENGINEER

DATE

TWO-LANE ROADWAY Undivided with Parking



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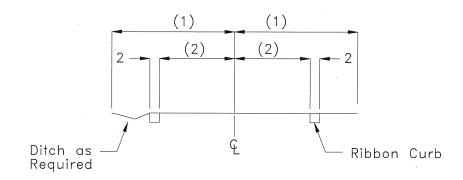
PEORIA DETAIL 299 RURAL STREETS



APPROVALS:

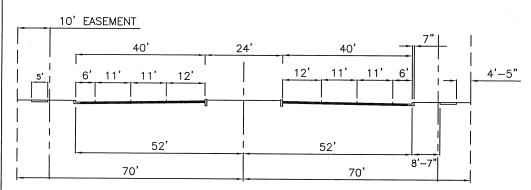
CITY ENGINEER

DATE



- (1) Local ROW 25' min. Collector ROW 30' min. @ 1/4 mi. and 1/8 mi. lines
- (2) Collector Pavement 17' min.

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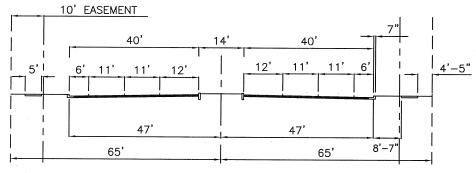
10' EASEMENT

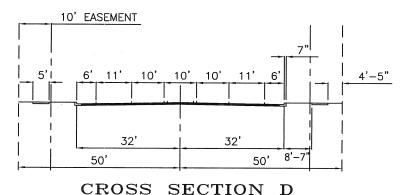
5' 6' 12' 12' 14' 12' 12' 6' 4'-5"

37' 37' 37'
55' 55' 55'

CROSS SECTION A

CROSS SECTION C
CROSS SECTION C-M. (SEE NOTE 3)





CROSS SECTION B

NOTES:

- 1. TEN (10) FOOT EASEMENTS MAY BE ALLOWED IN LIEU OF RIGHT-OF-WAY ON CROSS SECTIONS A, B, C, D, AT THE DISCRETION OF THE STREET TRANSPORTATION DEPARTMENT OR DEVELOPMENT SERVICES DEPARTMENT.
- 2. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED FOR DRAINAGE, UTILITIES, SLOPE RIGHTS, IRRIGATION FACILITIES OR TRAILS.**
- CROSS SECTION "C" HAS A 14' TWO WAY LEFT TURN LANE. CROSS SECTION C-M HAS A 14' RAISED MEDIAN.
- ** ACCORDING TO THE TRAILS PLAN, A 10 FOOT SIDEWALK MAY BE REQUIRED ON CROSS SECTIONS A,B,C,D,E,F, & G.

ALL DIMENSIONS ARE TO THE FACE OF CURB.

P1010



MINIMUM ARTERIAL STREET CROSS SECTION

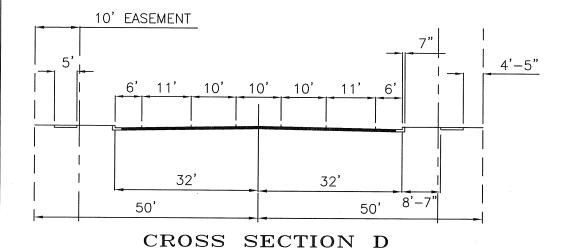
APPROVED

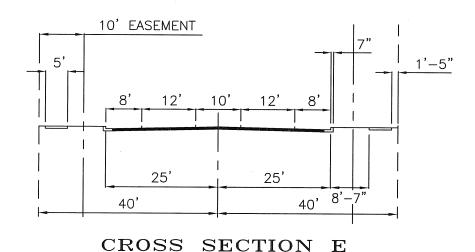
Warus Saddemands

CITY ENGINEER

2-11-02

P1010





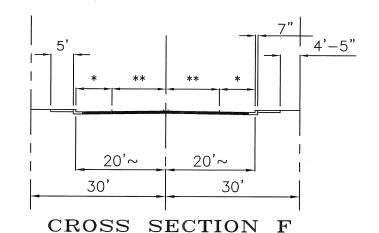
NOTES:

TEN (10) FOOT EASEMENTS MAY BE ALLOWED IN LIEU OF RIGHT-OF-WAY ON CROSS SECTIONS A, B, C, D, AND E; AT THE DISCRETION OF THE STREET TRANSPORTATION DEPARTMENT OR DEVELOPMENT SERVICES DEPARTMENT.

ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED FOR DRAINAGE, UTILITIES, SLOPE RIGHTS, IRRIGATION FACILITIES OR TRAILS.

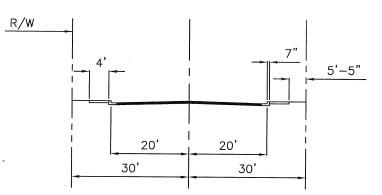
ALL DIMENSIONS ARE TO THE FACE OF CURB.

FINAL LANE CONFIGURATION AND WIDTHS TO BE DETERMINED BY STREET TRANSPORTATION. LANE WIDTHS SHOWN ARE FOR INFORMATION ONLY AND MAY NOT REFLECT APPROVED STRIPING PLANS.



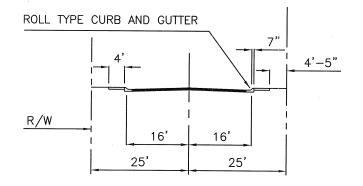
- * 6' or 8' VARIES
- ** 12' or 14' VARIES
- COLLECTORS WITH RESIDENTIAL BACKUP TREATMENT MAY BE 18'.





CROSS SECTION F

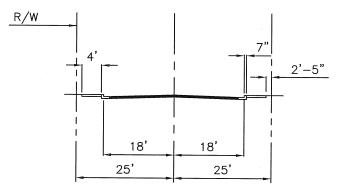
INDUSTRIAL LAND USE VERTICAL CURB AND ADJACENT SIDEWALK



CROSS SECTION H

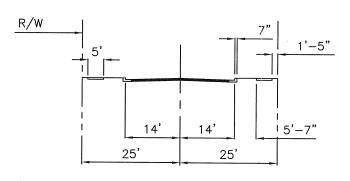
SINGLE FAMILY RESIDENTIAL LAND USE

OPTION A: ROLL CURB AND ADJACENT SIDEWALK



CROSS SECTION G

COMMERCIAL & MULTI FAMILY RESIDENTIAL LAND USE VERTICAL CURB AND ADJACENT SIDEWALK



CROSS SECTION I

SINGLE FAMILY RESIDENTIAL LAND USE

OPTION B: VERTICAL CURB AND SET BACK SIDEWALK NOTES:

ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED FOR DRAINAGE, UTILITIES, SLOPE RIGHTS, IRRIGATION FACILITIES, OR TRAILS.

ALL DIMENSIONS ARE TO THE FACE OF CURB.

ALL CURBS ARE VERTICAL UNLESS NOTED.

DETAIL NO. P1014

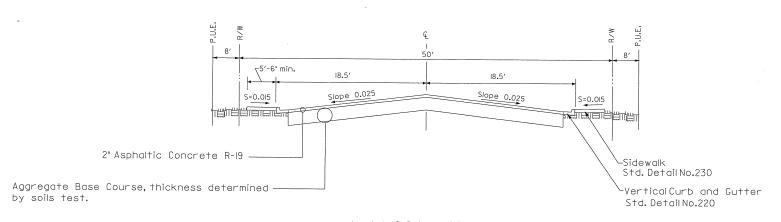


MINIMUM LOCAL STREET CROSS SECTIONS

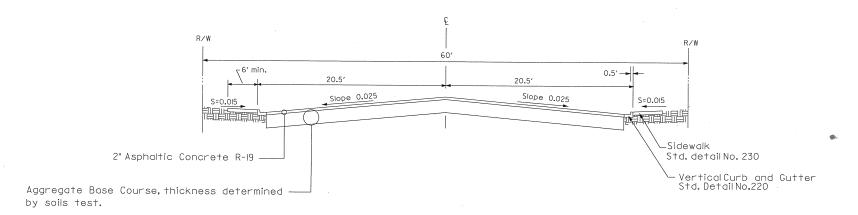
Saddamando

DETAIL NO. P1014

2-11-02



L-I LOCAL STREET



L-2 LOCAL STREET
MULTI-FAMILY AND INDUSTRIAL

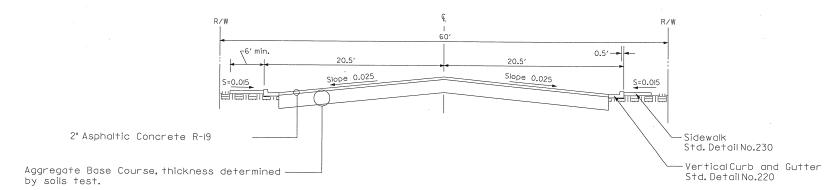
APPROVED:

DEPUTY PUBLIC WORKS MANAGER DATE CITY ENGINEER

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STREET CROSS-SECTIONS. (L-I,L-2)

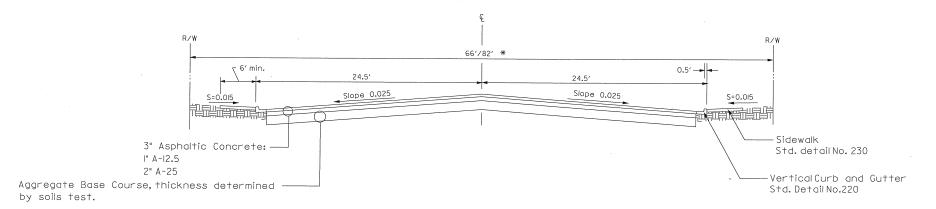
DETAIL T-311



NOTE:

Minimum length of full height curb between adjacent driveways is (3').

C-I COLLECTOR STREET (OTHER THAN MIDSECTION LINE)



C-2 MID-SECTION LINE COLLECTOR STREET & INDUSTRIAL STREET

See Standard Detail T-314 for typical intersection with collector and arterial street.

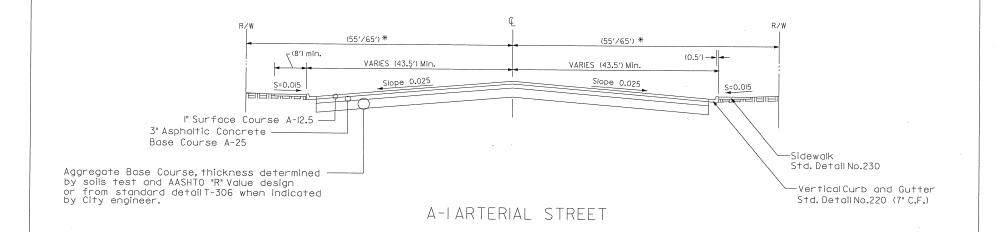
* At Arterial/midsection Collector Intersection (±250') Before curb Return



CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

COLLECTOR STREET CROSS-SECTIONS. (C-I,C-2)

DETAIL T-312



* At Arterial/ArterialIntersection (±300') Before Curb Return.

APPROVED:

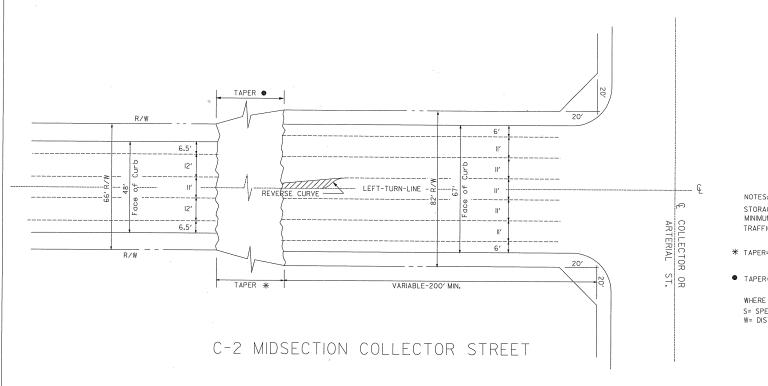
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

ARTERIAL STREET CROSS-SECTION. (A-I)

DETAIL T-313



NOTES:

STORAGE LANES GREATER THAN THE MINIMUM SHALL BE DETERMINED BY TRAFFIC ENGINEER.

$$*$$
 TAPER= $\frac{s^2x w}{60}$

TAPER= S X W

S= SPEED IN MILES PER HOUR

W= DISTANCE TRAFFIC IS MOVED LATERALLY

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

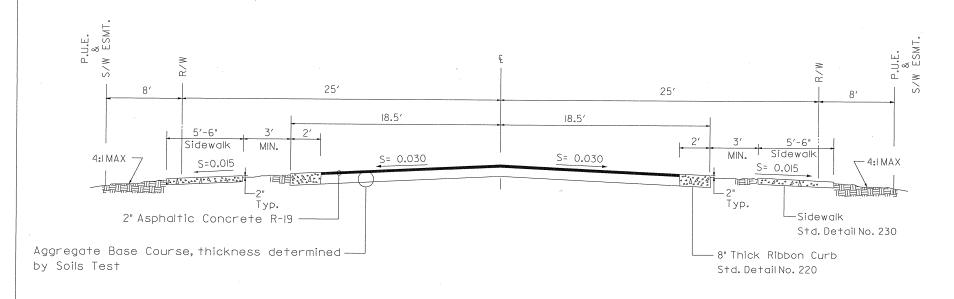
CITY ENGINEER

DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STREET INTERSECTIONS

DETAIL T-314



L-I LOCAL STREET

APPROVED:

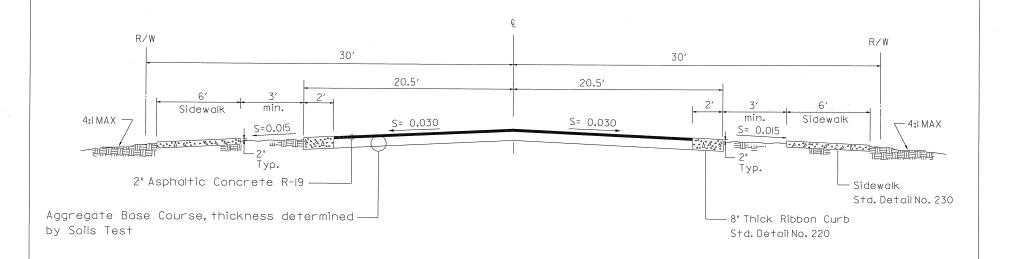
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STREET CROSS-SECTION (RIBBON CURB)

DETAIL T-315



C-I RESIDENTIAL COLLECTOR STREET (OTHER THAN MIDSECTION LINE)

APPROVED:

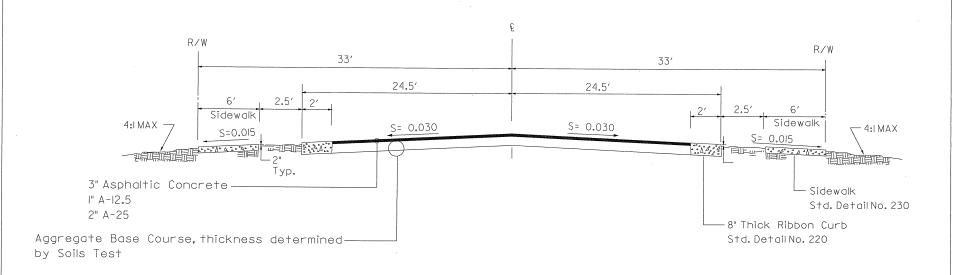
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STREET CROSS-SECTION (RIBBON CURB)

DETAIL T.-316



C-2" MIDSECTION LINE COLLECTOR STREETS

APPROVED:

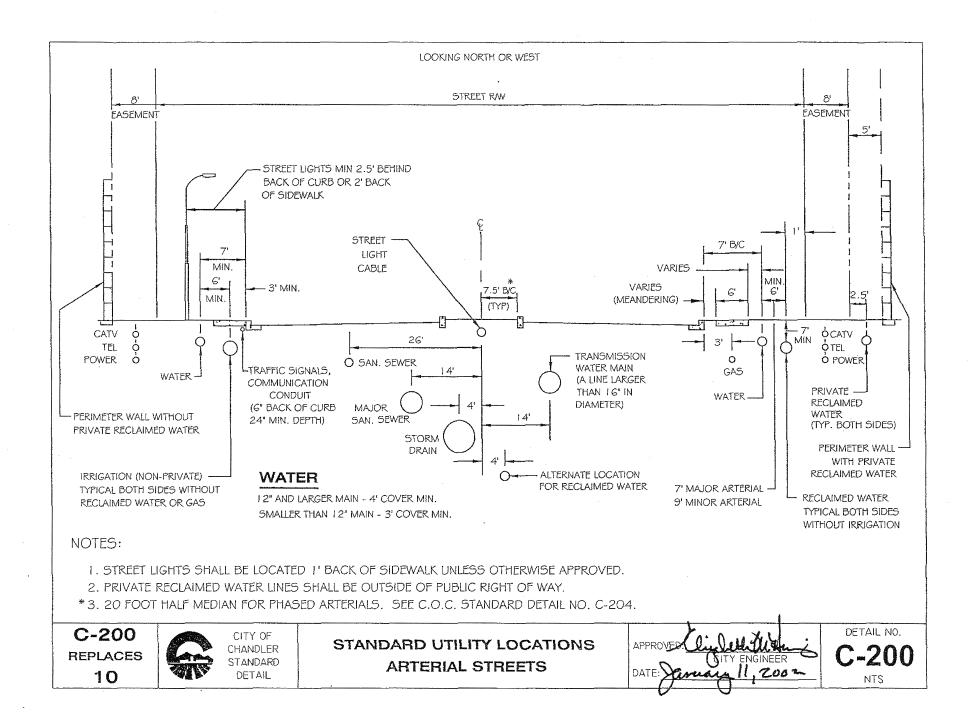
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

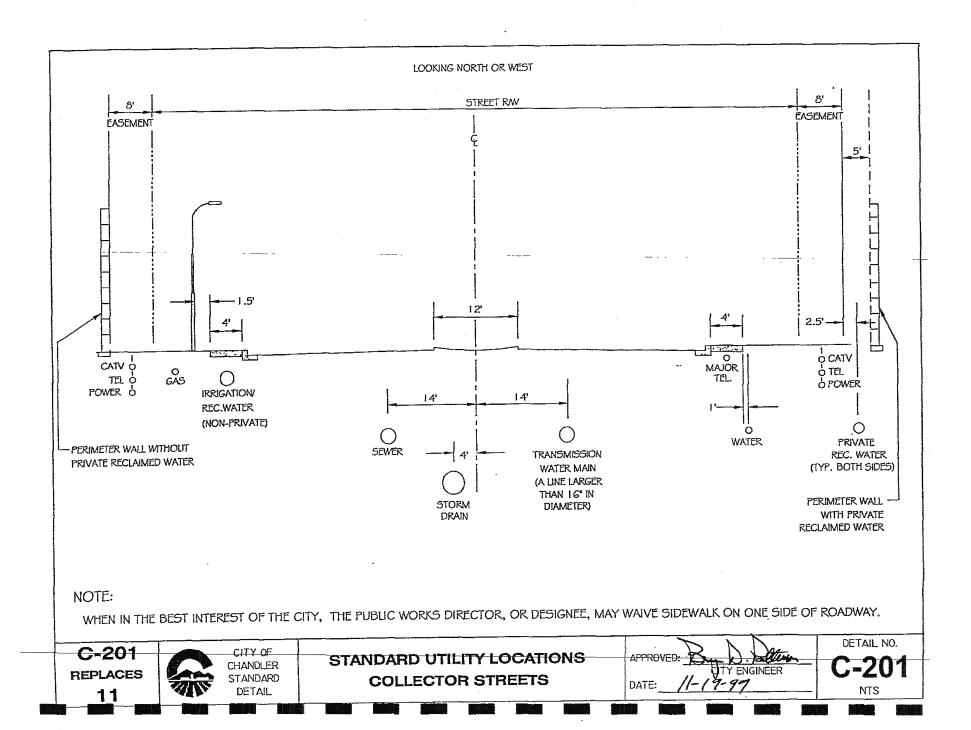
CITY ENGINEER DATE

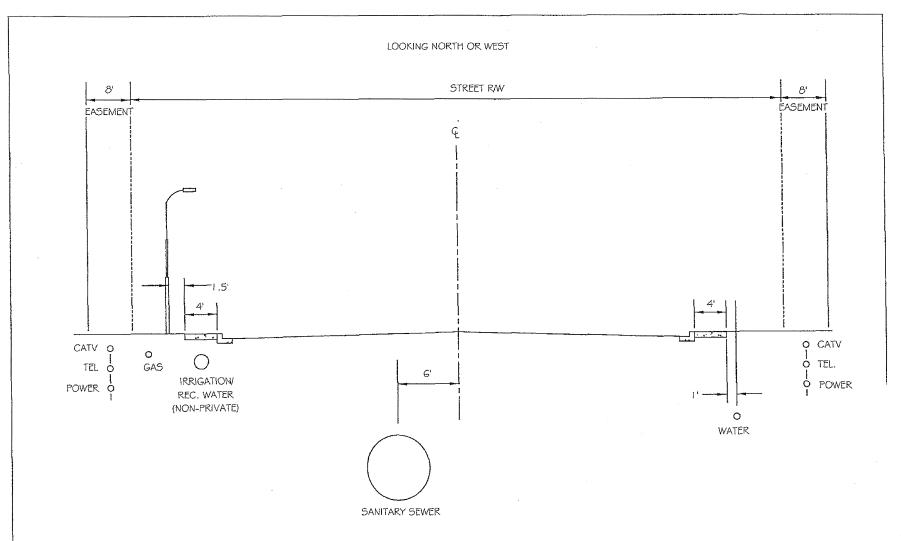
CITY OF TEMPE PUBLIC WORKS DEPARTMENT

STREET CROSS-SECTION (RIBBON CURB)

DETAIL T-317
REVISED 2000







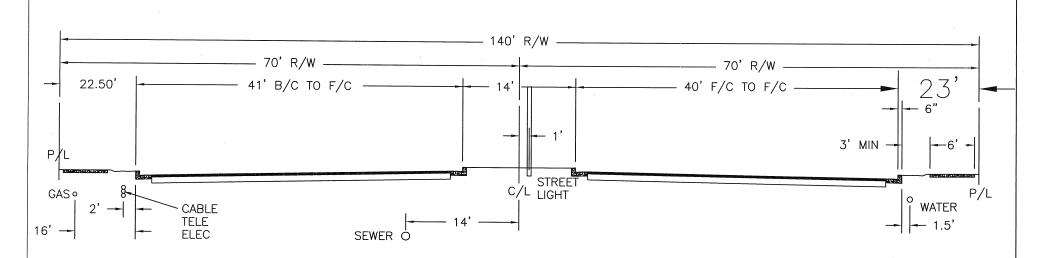
WHEN IN THE BEST INTEREST OF THE CITY, THE PUBLIC WORKS DIRECTOR, OR DESIGNEE, MAY WAIVE SIDEWALK ON ONE SIDE OF ROADWAY.

C-202 REPLACES 12



STANDARD UTILITY LOCATIONS LOCAL STREETS

DETAIL NO. C-202 NTS

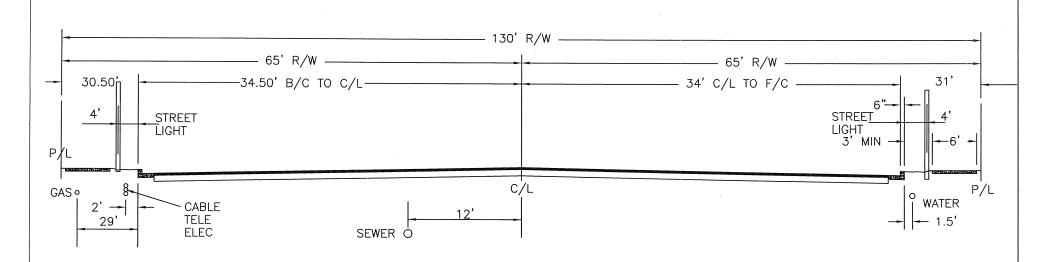


DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL STANDARD UTILITY LOCATIONS FOR MAJOR ARTERIALS

REVISED 1/2005

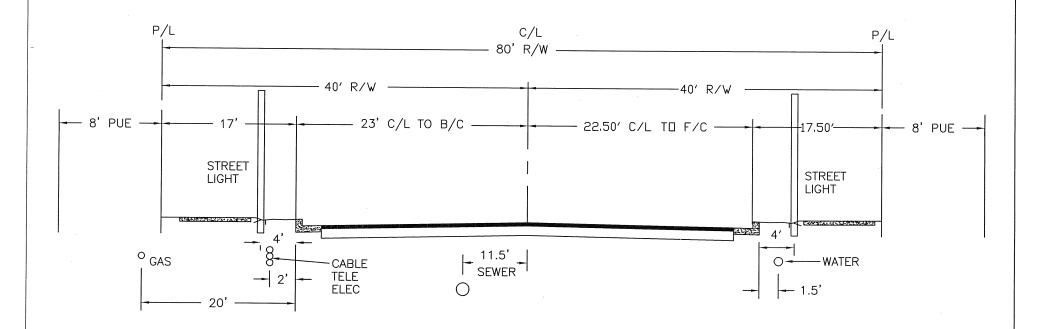
detail no. 21A



DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL STANDARD UTILITY LOCATIONS FOR MINOR ARTERIALS

REVISED 1/2005



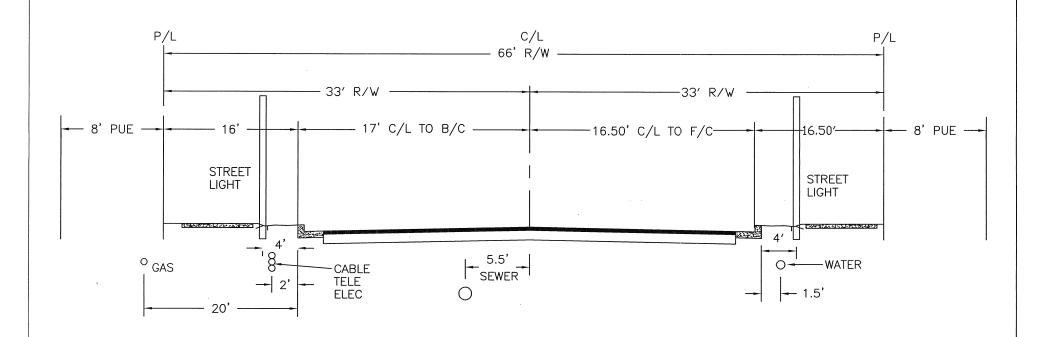
DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL

STANDARD UTILITY LOCATIONS FOR MAJOR COLLECTORS

REVISED 1/2005

DETAIL NO. 23A



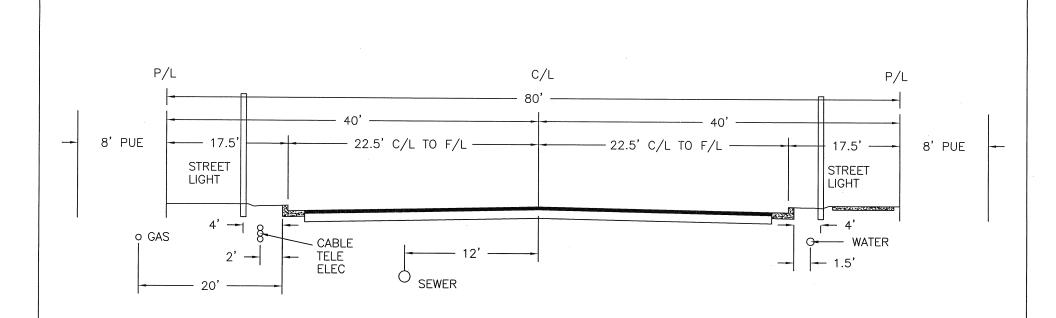
DETAIL NO. 24A

TOWN OF GILBERT STANDARD DETAIL

STANDARD UTILITY LOCATIONS FOR RESIDENTAL COLLECTORS

REVISED 1/2005

DETAIL NO. 24A



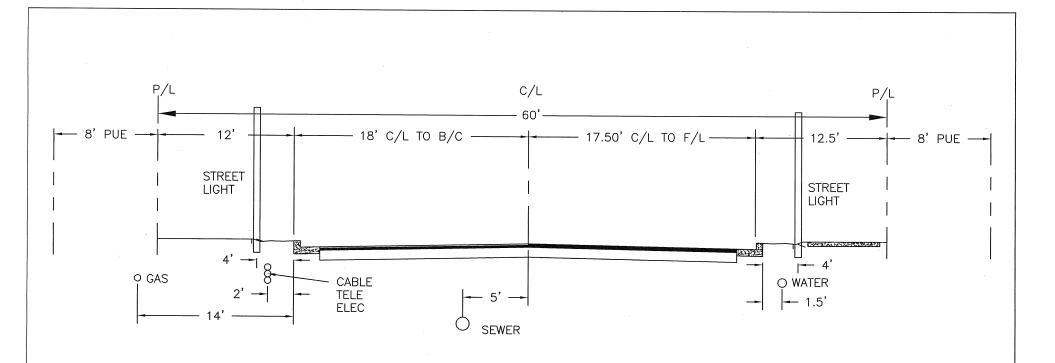
DETAIL NO. 25A

TOWN OF GILBERT STANDARD DETAIL

STANDARD UTILITY LOCATIONS FOR INDUSTRIAL COLLECTORS

REVISED 1/2005

DETAIL NO. 25A

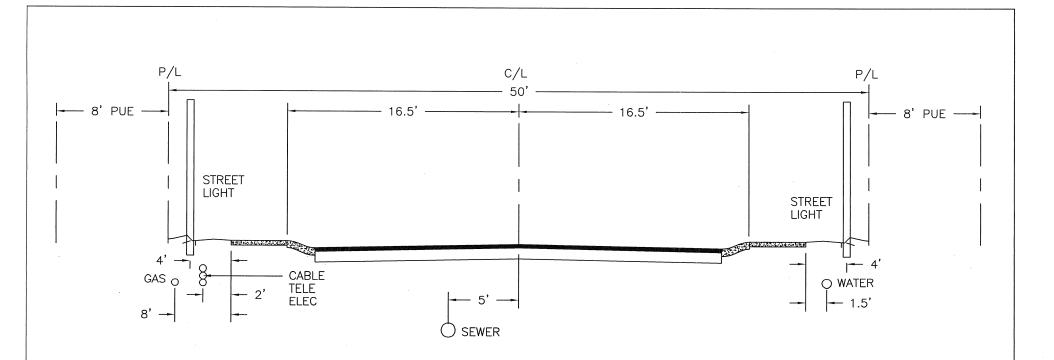


DETAIL NO. 26A

TOWN OF GILBERT STANDARD DETAIL STANDARD UTILITY LOCATIONS
FOR LOCAL INDUSTRIAL

REVISED 1/2005

DETAIL NO. 26A

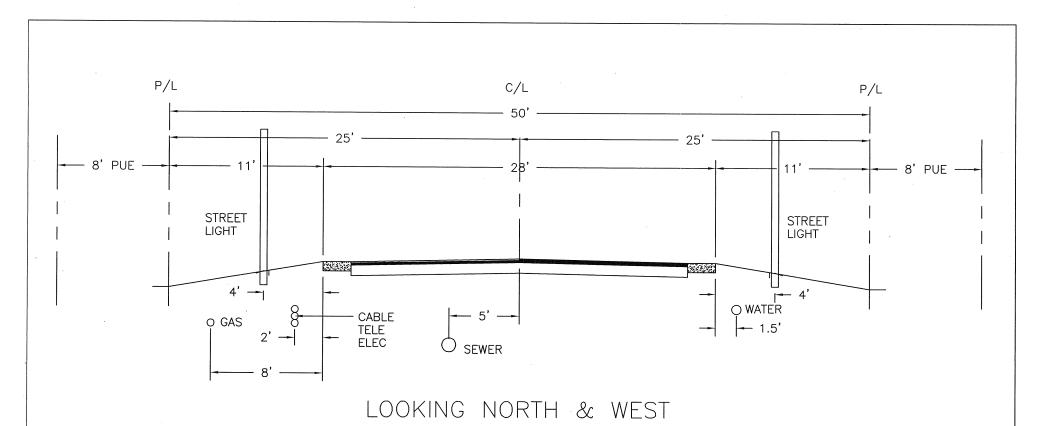


DETAIL NO. 27A

TOWN OF GILBERT STANDARD DETAIL STANDARD UTILITY LOCATIONS
FOR LOCAL STREETS

REVISED 1/2005

DETAIL NO. 27A



detail no. 28A

TOWN OF GILBERT STANDARD DETAIL

STANDARD UTILITY LOCATIONS FOR AGRARIAN STREETS

REVISED 1/2005

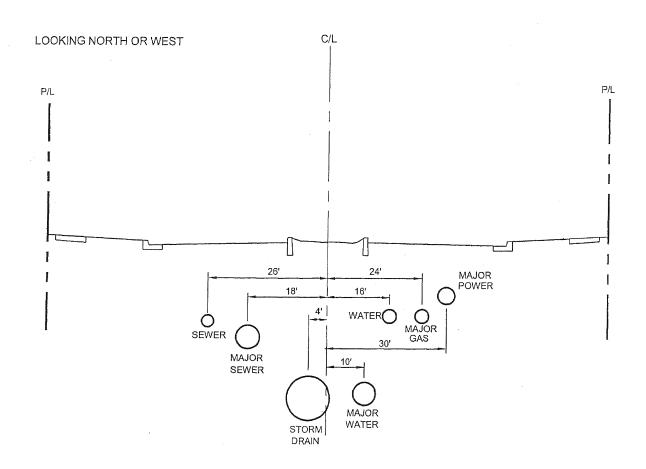
detail no. 28A

STANDARD DETAIL G-313

CITY OF GLENDALE ENGINEERING



STANDARD UTILITY LOCATIONS MAJOR ARTERIAL AND ARTERIAL STREETS



ALL UTILITIES NOT SHOWN, e.g. ELECTRIC, GAS, ETC., SHALL BE PLACED IN ADJACENT PUBLIC UTILITY EASEMENTS (P.U.E.).

of Brogles

NOTE: ALL CITY OWNED UTILITY LINES SHALL MAINTAIN A 6' (MIN,) HORIZONTAL CLEARANCE FROM EACH OTHER AND ALL OTHER UNDERGROUND UTILITY LINES.

APPROVED BY:

CITY ENGINEER

0/28/02

. . . –

REVISED: JUNE

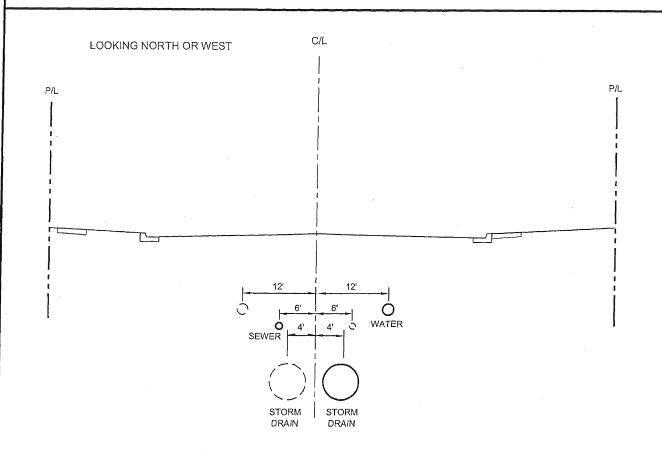
PREVIOUS

STANDARD DETAIL G-315

CITY OF GLENDALE ENGINEERING



STANDARD UTILITY LOCATIONS COLLECTOR STREETS



ALL UTILITIES NOT SHOWN, e.g. ELECTRIC, GAS, ETC., SHALL BE PLACED IN ADJACENT PUBLIC UTILITY EASEMENTS (P.U.E.).

NOTE: DASHED UTILITIES ARE ALTERNATE LOCATIONS WHEN ONLY HALF OF THE STREET RIGHT-OF-WAY IS DEDICATED-EXCEPT STORM DRAIN WILL ALWAYS BE ON OPPOSITE SIDE OF CENTER LINE FROM SEWER.

ALL CITY OWNED UTILITY LINES SHALL MAINTAIN A 6' (MIN.) HORIZONTAL CLEARANCE FROM EACH OTHER AND ALL OTHER UNDERGROUND UTILITY LINES

of Broyles

APPROVED BY:

6/28/02 DATE

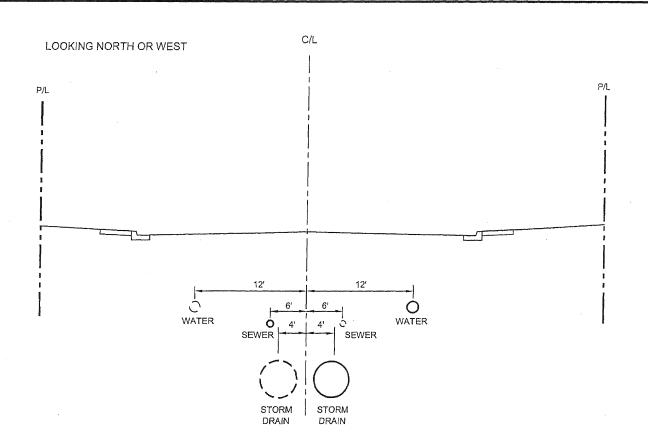
CITY ENGINEER

STANDARD DETAIL G-316

CITY OF GLENDALE ENGINEERING



STANDARD UTILITY LOCATIONS LOCAL STREETS



ALL UTILITIES NOT SHOWN, e.g. ELECTRIC, GAS, ETC., SHALL BE PLACED IN ADJACENT PUBLIC UTILITY EASEMENTS (P.U.E.).

NOTE: DASHED UTILITIES ARE ALTERNATE LOCATIONS WHEN ONLY HALF OF THE STREET RIGHT-OF-WAY IS DEDICATED-EXCEPT STORM DRAIN WILL ALWAYS BE ON OPPOSITE SIDE OF CENTER LINE FROM SEWER.

ALL CITY OWNED UTILITY LINES SHALL MAINTAIN A 6' (MIN.) HORIZONTAL CLEARANCE FROM EACH OTHER AND ALL OTHER UNDERGROUND UTILITY LINES

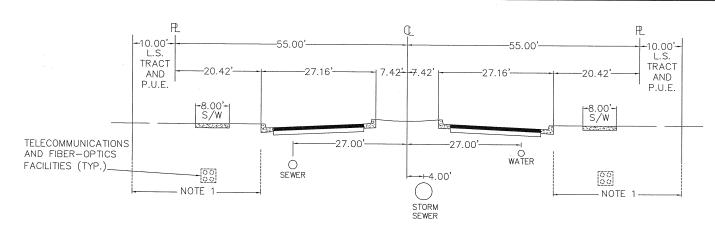
LOOKING NORTH OR WEST

APPROVED BY:

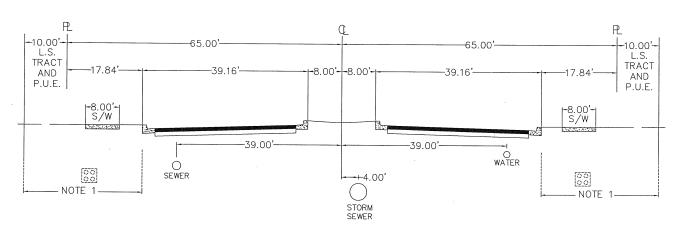
Torry Brosles
CITY ENGINEER

4/28/02

051/1050



ARTERIAL STREET



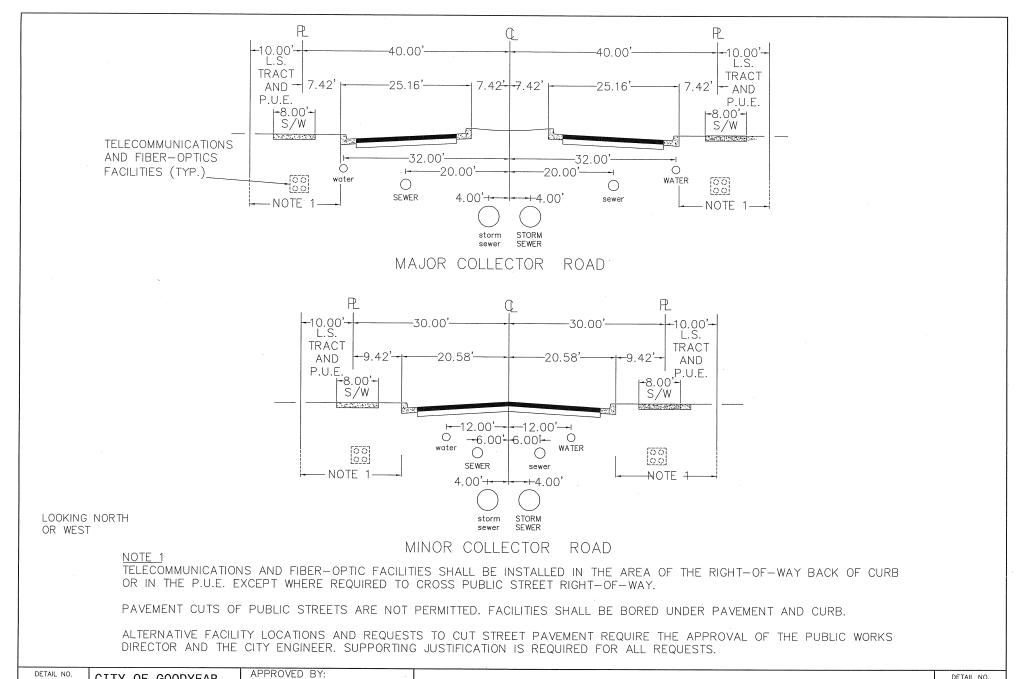
MAJOR ARTERIAL STREET

LOOKING NORTH OR WEST TELECOMMUNICATIONS AND FIBER-OPTIC FACILITIES SHALL BE INSTALLED IN THE AREA OF THE RIGHT-OF-WAY BACK OF CURB OR IN THE P.U.E. EXCEPT WHERE REQUIRED TO CROSS PUBLIC STREET RIGHT-OF-WAY.

PAVEMENT CUTS OF PUBLIC STREETS ARE NOT PERMITTED. FACILITIES SHALL BE BORED UNDER PAVEMENT AND CURB.

ALTERNATIVE FACILITY LOCATIONS AND REQUESTS TO CUT STREET PAVEMENT REQUIRE THE APPROVAL OF THE PUBLIC WORKS DIRECTOR AND THE CITY ENGINEER. SUPPORTING JUSTIFICATION IS REQUIRED FOR ALL REQUESTS.

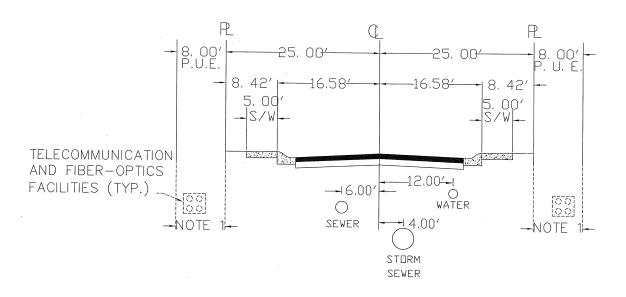
DETAIL	NO.
G-31	32



G-3134 CITY OF GOODYEAR STANDARD DETAIL

Goodyear Standards and
Policies Committee 12/00

STANDARD UTILITY LOCATION



RESIDENTIAL STRFFT

LOOKING NORTH OR WEST NOTE 1

TELECOMMUNICATIONS AND FIBER-OPTIC FACILITIES SHALL BE INSTALLED IN THE P.U.E. EXCEPT WHERE REQUIRED TO CROSS PUBLIC RIGHT-OF-WAY.

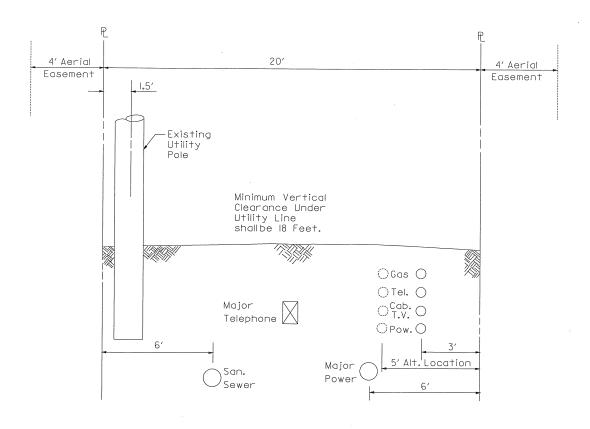
PAVEMENT CUTS OF PUBLIC STREETS ARE NOT PERMITTED. FACILITATES SHALL BE BORED UNDER PAVEMENT AND CURB.

ALTERNATIVE FACILITY LOCATIONS AND REQUESTS TO CUT STREET PAVEMENT REQUIRE THE APPROVAL OF THE PUBLIC WORKS DIRECTOR AND THE CITY ENGINEER. SUPPORTING JUSTIFICATION IS REQUIRED FOR ALL REQUESTS.

DETAIL NO. **G-3136**

CITY OF GOODYEAR STANDARD DETAIL APPROVED BY: Goodyear Standards and Policies Committee 12/00

STANDARD UTILITY LOCATION



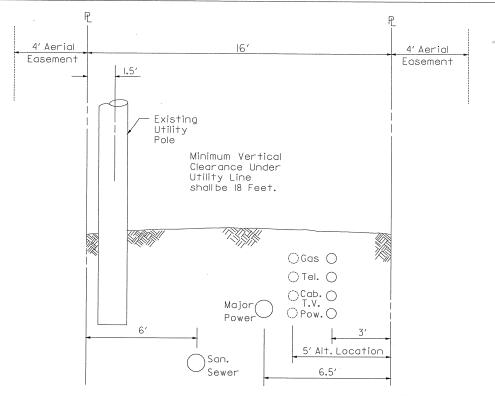
- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25,120.
- 4. Utilities shall be Placed in Conduits. See Detail T-115 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

CITY ENGINEER DATE





- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25,120.
- 4. Utilities shall be Placed in Conduits. See Detail T-II5 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

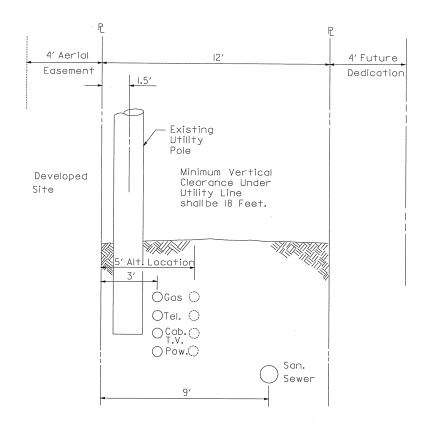
CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STANDARD UTILITY LOCATION (16' Alley)

DETAIL T-432

REVISED 1998



- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25,120.
- 4. Utilities shall be Placed in Conduits. See Detail T-II5 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

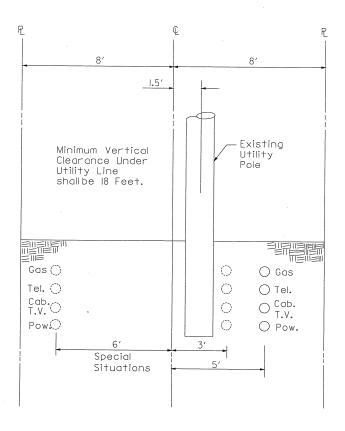
CITY ENGINEER DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT

STANDARD UTILITY LOCATION (12' Alley)

DETAIL T-433

REVISED 1998



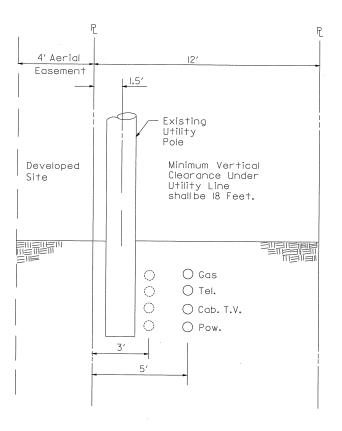
- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25,120.
- 4. Utilities shall be Placed in Conduits. See Detail T-115 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE





- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25.120.
- 4. Utilities shall be Placed in Conduits. See Detail T-II5 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

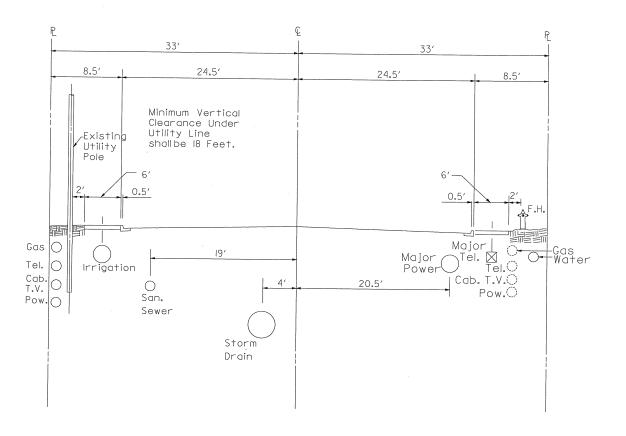
CITY ENGINEER DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT

STANDARD UTILITY LOCATION (12' EASEMENT)

DETAIL T-435

REVISED 1998

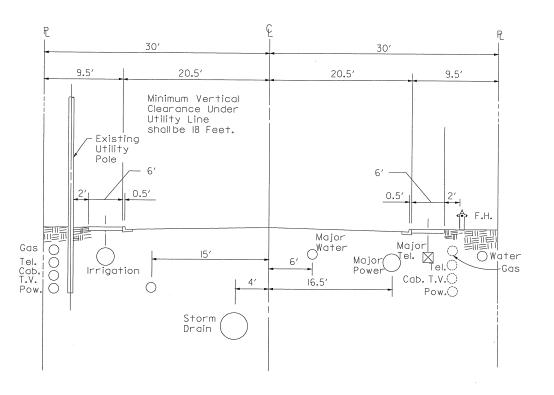


- I. Poles to be Located with 2' of Clearance to sidewalk
- 2. Dashed Lines Indicate Alternate Locations.
- 3. Cross Section is as Viewed Looking North or West.
- 4. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25.120.
- 5. Utilities shall be Placed in Conduits. See Detail T-115 General Notes.

APPROVED: ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

CITY ENGINEER DATE





- I. Poles to be Located with 2' of Clearance to sidewalk
- 2. Dashed Lines Indicate Alternate Locations.
- 3. Cross Section is as Viewed Looking North or West.
- 4. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25.120.
- 5. Utilities shall be Placed in Conduits. See Detail T-II5 General Notes.

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

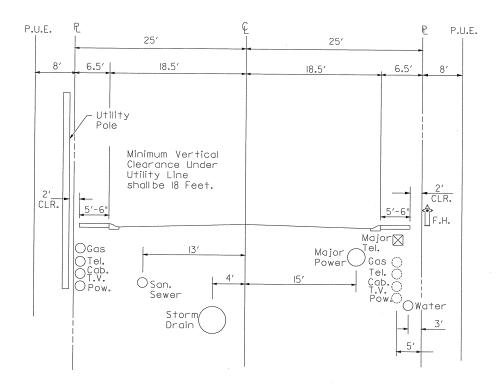
CITY ENGINEER DATE



STANDARD UTILITY LOCATION (C-I RESIDENTAL COLLECTOR STREET)

DETAIL T-437

REVISED 2000



- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25,120.
- 4. Utilities shallbe Placed in Conduits. See Detail T-II5 General Notes.

APPROVED:

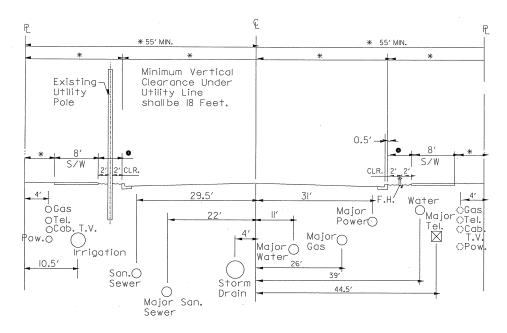
ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

CITY ENGINEER DATE



STANDARD UTILITY LOCATION (L-I SINGLE LOCAL STREET)

DETAIL T-438
REVISED 2000



A-I ARTERIAL STREET WITH 8' SIDEWALK

NOTES:

- I. Cross Section is as Viewed Looking North or West.
- 2. Dashed Lines Indicate Alternate Locations.
- 3. No New Poles or Overhead Lines Allowed in Tempe per Tempe City Code No. 25.120.
- 4. Utilities shall be Placed in Conduits. See Detail T-II5 General Notes.
- * Varies
- See Typical Sidewalk Alignment Detail T-345

APPROVED:

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

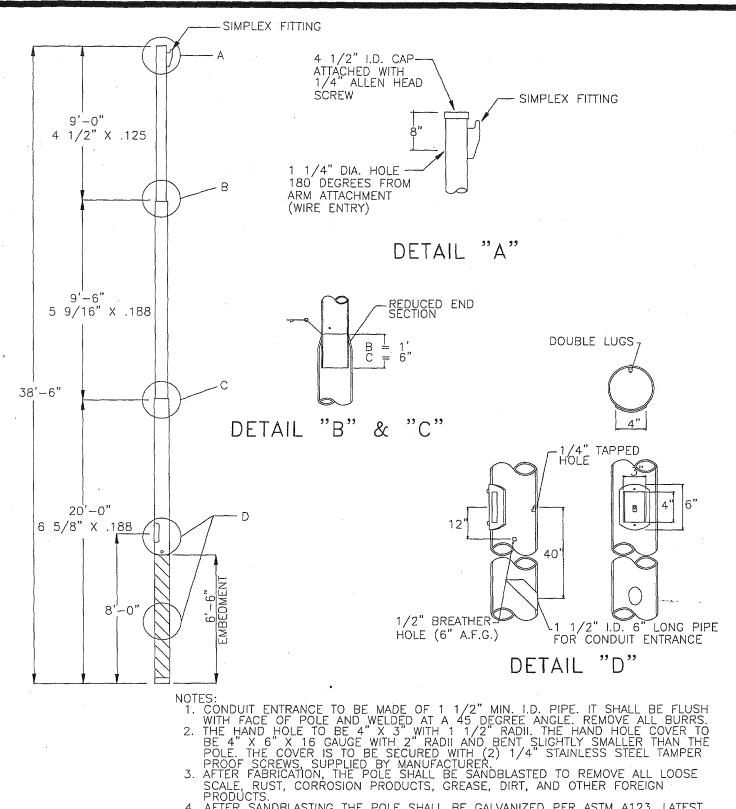
CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

STANDARD UTILITY LOCATION (A-LARTERIAL STREET)

DETAIL T-439

REVISED 2000



PRODUCTS.

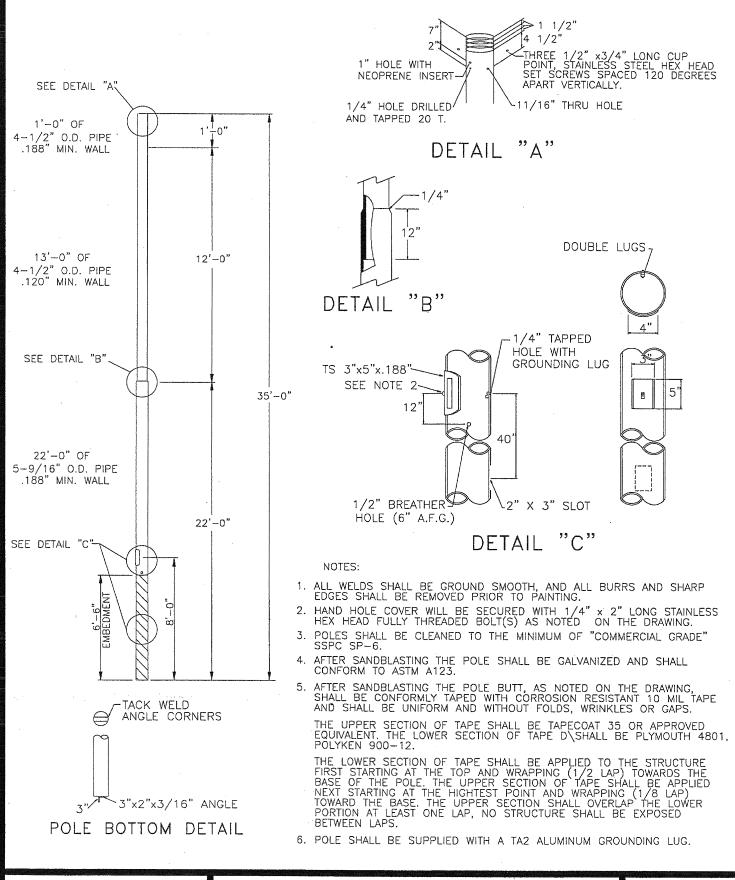
4. AFTER SANDBLASTING THE POLE SHALL BE GALVANIZED PER ASTM A123, LATEST EDITION, ZINC (HOT GALVANIZED) COATING ON THE PRODUCTS FABRICATED FROM ROLLED, PRESSED AND FORGED STEEL, PLATES, BARS AND STRIPS.

5. AFTER GALVANIZING, THE BOTTOM 7 FEET OF POLE SHALL BE CONFORMABLY HALF LAP TAPED WITH SCOTCH 50 CORROSION PROTECTION TAPE OR EQUIVALENT.

CITY OF AVONDALE

STREET LIGHT STANDARD ROUND POLE

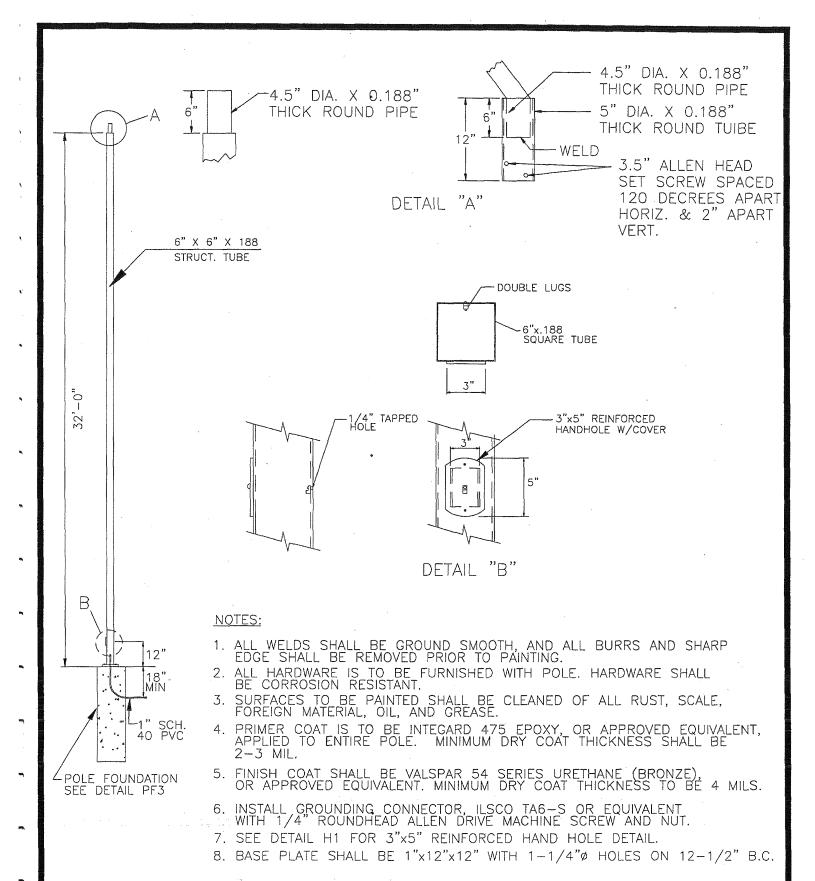
DETAIL NO. NTS



CITY OF AVONDALE

STREET LIGHT STANDARD
35' ROUND POLE





CITY OF AVONDALE

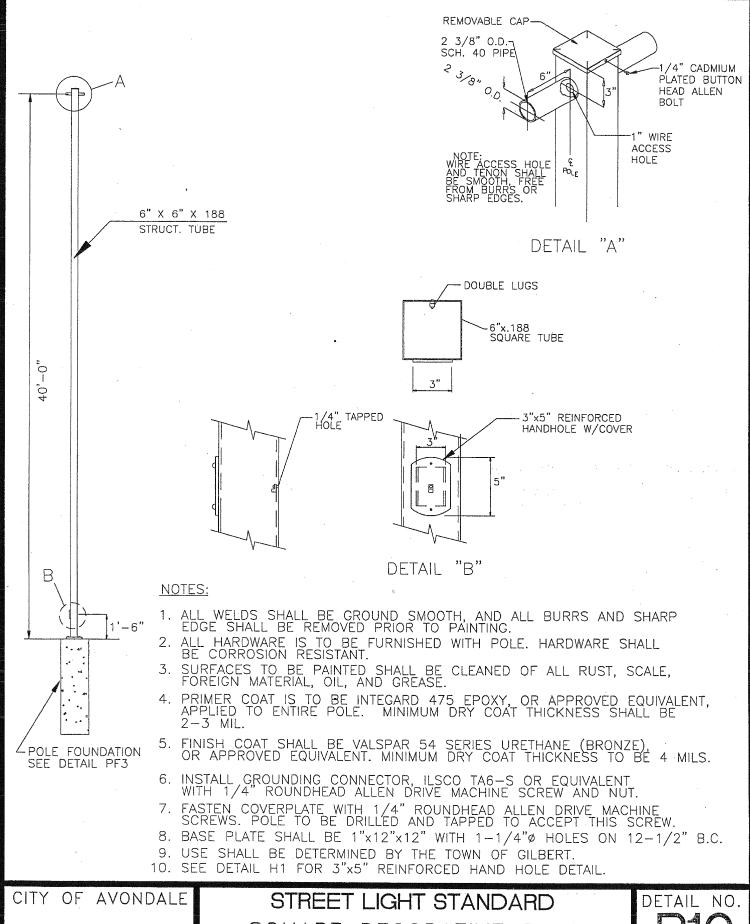
STREET LIGHT STANDARD

SQUARE DECORATIVE POLE

ARTERIAL STREETS

P9

NTS

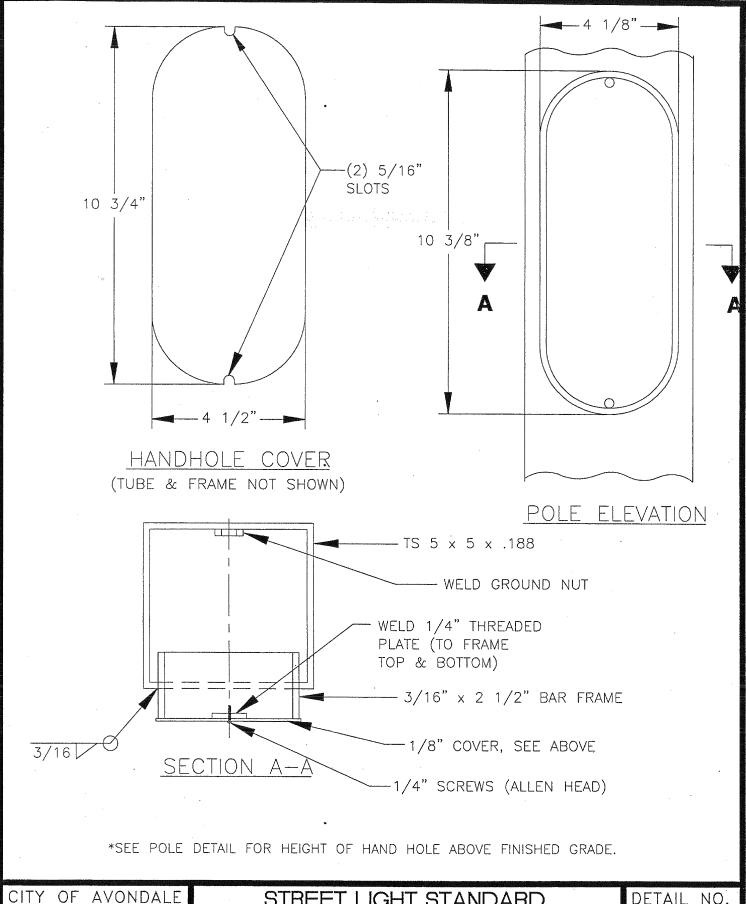


STREET LIGHT STANDARD

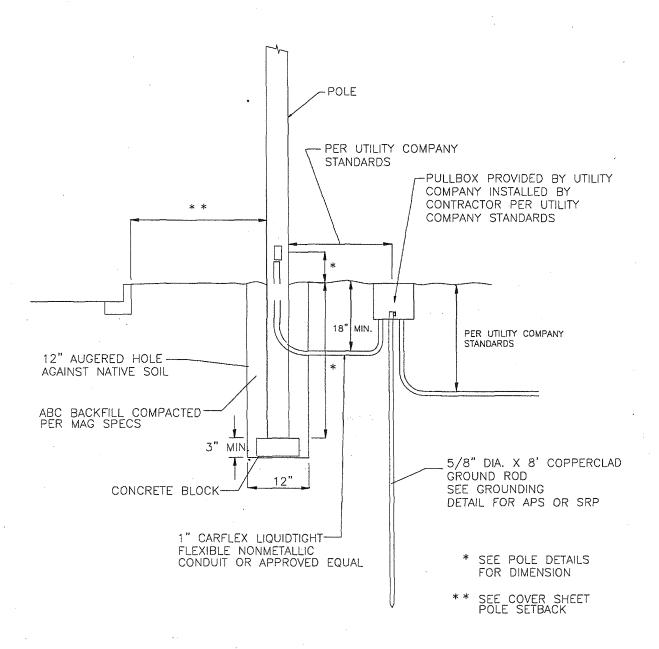
SQUARE DECORATIVE POLE

ARTERIAL STREETS (MEDIAN)

P10 NTS

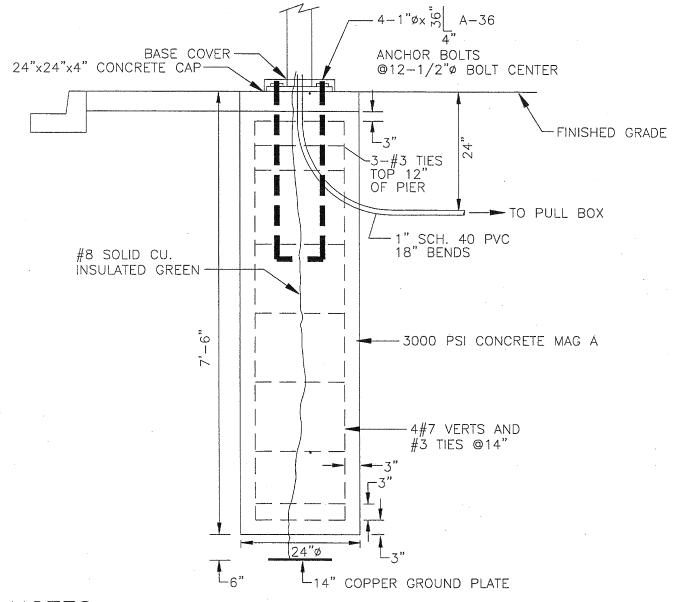


STREET LIGHT STANDARD POLE HANDHOLE DETAIL 4 1/8"x10 3/8" REINFORCED DETAIL NO. NTS



CITY OF AVONDALE

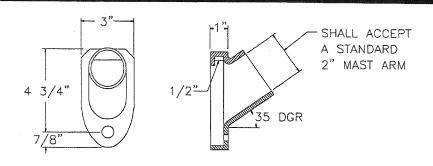
STREET LIGHT STANDARD
EMBEDDED POLE DETAIL



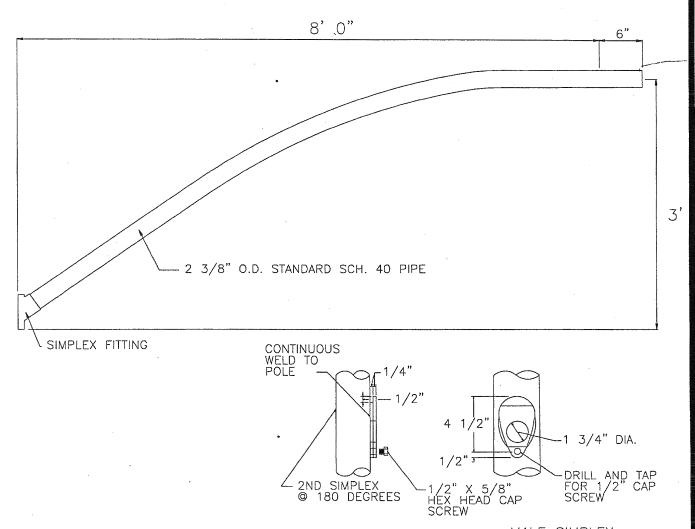
- REINF A615 GRADE 60 EXCEPT #3 GRADE 40
- TOP OF FOUNDATION SHALL BE FINISHED WITH A SMOOTH SURFACE WITH A 1/2" ROUND EDGE.
- POLE FOUNDATION SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES.
- ALL FINISHED POLE FOUNDATIONS SHALL BE AT SIDEWALK GRADE.
- ANCHOR BOLTS SHALL BE FULLY GALVINIZED PER ASTM A-153.
- CONCRETE PLACEMENT SHALL FOLLOW MAG SPECIFICATIONS.
- DO NOT FREEFALL CONCRETE IN EXCESS OF 5'.
- A VIBRATOR SHALL BE USED TO DISTRIBUTE CONCRETE & REDUCE AIRVOIDS. MAXIMUM SLUMP SHALL NOT EXCEED 5". 8.
- 9.
- 10. CAP SHALL BE POURED SEPERATELY WITH 3000 PSI CONCRETE.

CITY OF AVONDALE

STREET LIGHT STANDARD CONCRETE FOUNDATION DETAIL



FEMALE SIMPLEX .



MALE SIMPLEX

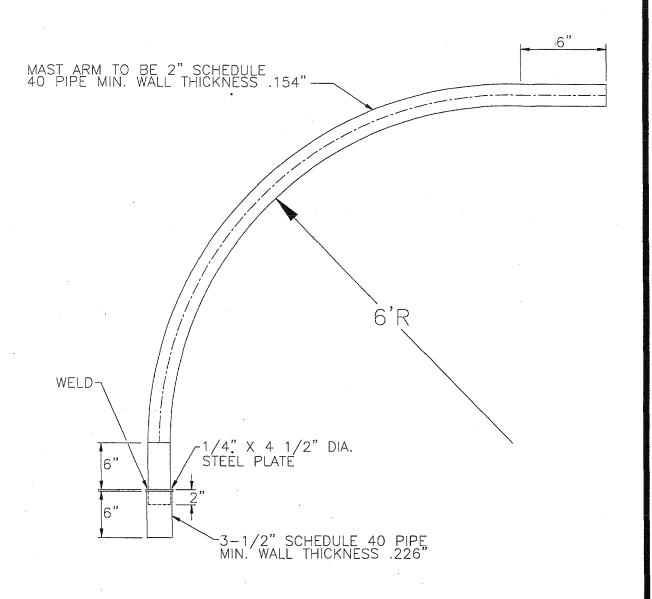
NOTES:

- 1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL
 BE REMOVED PRIOR TO GALVANIZING.
 2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN
 MATERIAL, OIL, AND GREASE.
 3. FINISH COAT SHALL BE GALVANIZED PER ASTM A—123 OR APPROVED
 EQUIVALENT.

- 4. USE WITH P4.

CITY OF AVONDALE

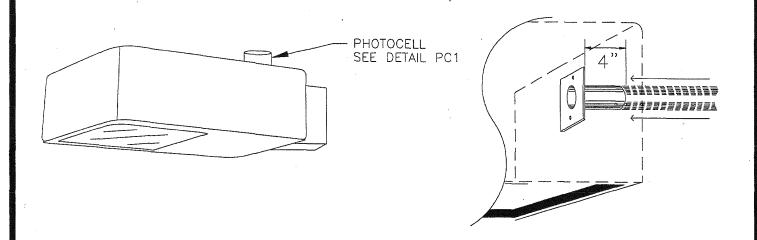
STREET LIGHT STANDARD 8' X 3' MAST ARM



- ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
 SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
 FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR APPROVED EQUIVALENT.
- 4. USE WITH P6.

CITY OF AVONDALE

STREET LIGHT STANDARD RADUIS ARM FOR COBRA HEAD FIXTURE



HOUSING SHALL BE OF ONE PIECE, FORMED ALUMINUM ON UPPER PORTION OF UNIT. DOOR FRAME TO BE MANUFACTURED OF EXTRUDED ALUMINUM WITH CONCEALED HINGES AND TWO QUICK RELEASE LATCHES. ALL ELECTRICAL COMPONENTS SHALL BE MOUNTED ON A REMOVABLE BALLAST DRAWER ASSEMBLY AND USE QUICK DISCONNECT TYPE POWER INPUT PLUG.

SLIP FITTER SHALL HAVE 3 RECESSED ALLEN BOLTS TO TIGHTEN SLIP FITTER AGAINST TENON.

FINISH - EXTERNAL FINISH SHALL BE OF THERMOSET ENAMEL, BRONZE IN COLOR.

ALL FIXTURES SHALL BE SUPPLIED WITH PHOTOCELL SOCKET, PHOTOCELL AND LAMP.

ALL FIXTURES SHALL HAVE A DECAL SHOWING WATTAGE OF FIXTURE WITH 2" BLACK LETTERING ON YELLOW BACKGROUND ATTACHED BETWEEN LENSE AND POLE ON BOTTOM OF FIXTURE. THIS DECALL SHALL BE VISIBLE FROM THE STREET.

APPROVED MANUFACTURERS ARE:

GE LIGHTING SYSTEMS

DSMT10S0A2GM2DB, 120/240 VOLT BALLAST (100 WATT) DSMT15S0A2GM3DB, 120/240 VOLT BALLAST (150 WATT) DSMT25S0A2GM3DB, 120/240 VOLT BALLAST (250 WATT) DSMT31S0A2GM3DB, 120/240 VOLT BALLAST (310 WATT)

OTHER APPROVED MANUFACTURER:

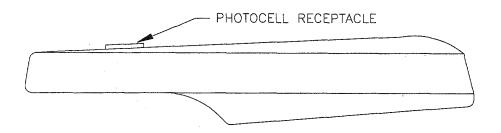
AMERICAN ELECTRIC

- *C-530089 120/240 VOLT BALLAST (100 WATT)
- *C-530090 120/240 VOLT BALLAST (150 WATT)
- *C-530091 120/240 VOLT BALLAST (250 WATT)
- *THESE FIXTURES DO NOT REQUIRE A SLIP FITTER.

CITY OF AVONDALE

STREET LIGHT STANDARD HPS FIXTURE SHOE BOX





FIXTURE HOUSING SHALL BE OF DIE CAST ALUMINUM WITHOUT SEAMS OR WELDS ON UPPER HALF OF UNIT. ALL ELECTRICAL COMPONENTS SHALL BE SECURELY ATTACHED TO THE UPPER HALF OF THE UNIT. LOWER HALF OF HOUSING SHALL BE HINGED ON INTEGRALLY CAST PIN HINGE AND SECURED WITH LATCH FOR ONE HANDED OPERATION. EXTERNAL FINISH SHALL BE BAKED ENAMEL, COLOR TO MATCH POLE, APPLIED BY ELECTROSTATIC PROCESS.

MOUNTING SHALL BE BY INTEGRAL SLIP FITTER FOR 1 3/8" TO 2 3/8" DIAMETER MAST ARMS.

FIXTURE SHALL MEET I.E.S. TYPE II OR III MEDIUM CUT-OFF.

APPROVED MANUFACTURERS:

AMERICAN ELECTRIC

100 WATT HPS - 113-56212-DJ 150 WATT HPS - 113-56262-DJ

250 WATT HPS - 125-OH133-DJ

400 WATT HPS - 125-OH143-DJ (PRIOR APPROVAL REQUIRED)

GENERAL ELECTRIC

100 WATT HPS - M2AC10S0N2GMC31

150 WATT HPS - M2AC15S0N2GMC31

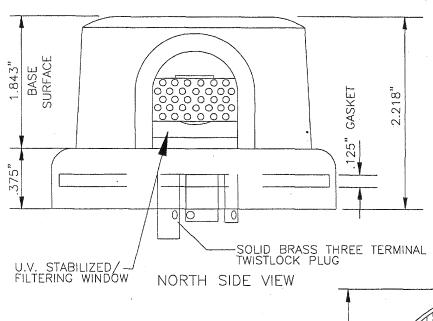
250 WATT HPS - M2AC25S0N2GMC31

400 WATT HPS - M4AC40S0N2GMC31 (PRIOR APPROVAL REQUIRED)

ALL FIXTURES MUST BE SUPPLIED WITH PHOTOCELL RECEPTACLE, PHOTOCELL AND LAMP.

CITY OF AVONDALE

STREET LIGHT STANDARD HPS FIXTURE COBRA HEAD



PHYSICAL

SIZE

WEIGHT

SEE DRAWING APPROX. 7 OZ. GROSS MOLDED PHENOLIC WITH 3 POLE CHASSIS

TWISTLOCK PLUG WITH CROSS LINKED POLYETHYLENE GASKET.

U.V. STABILIZED POLYPROPYLENE WITH ACRYLIC WINDOW WITH ULTRAVIOLET INHIBITOR. HOUSING

COLOR DARK BRONZE

ELECTRICAL

SUPPLY VOLTAGE RATINGS LOAD

INRUSH CURRENT

OPERATING LEVELS

CONTROL POWER DIELECTRICAL STRENGTH

LIGHT ARRESTOR

PHOTOCELL

TIME DELAY

ENVIRONMENTAL AMBIENT TEMPERATURE

RANGE MOISTURE RESISTANCE -65 DEGREES FAHRENHEIT TO +158 DEGREES

OFF CYCLE ONLY, 3 TO 30 SECONDS

HERMETICALLY SEALED CDS CELL, MINIMUM SURFACE AREA .75 SQUARE INCHES

PART AND METAL MOUNTING SURFACE. DELUXE—CONTROLLED TYPE EXPULSION ENCLOSED 2.0 KV SPARK OVER MIN. TYPE 10,000 AMPS FOLLOW THROUGH

3.2 WATTS, MAX. (2.75 AVERAGE) AT 240 VAC. 5 KV MIN. BETWEEN ANY CURRENT CARRYING

FAHRENHEIT 100% RELATIVE HUMIDITY

105-130 VOLTS, 50/60HZ AC

TURN ON AVERAGE 1FC. .2FC TURN ON MAXIMUM 1.8FC

1800VA MAX. SPST, N.C. 130 AMPERES AT 120 VOLTS 65 AMPERES AT 240 VOLTS

RATIO AVERAGE 3

3.156

BOTTOM VIEW

APPROVED MANUFACTURERS:

CROSS-LINKED POLYPROPLYENE

GASKET

FISHER PIERCE

120V 7762-EPSTD 240V 7772-EPSTD

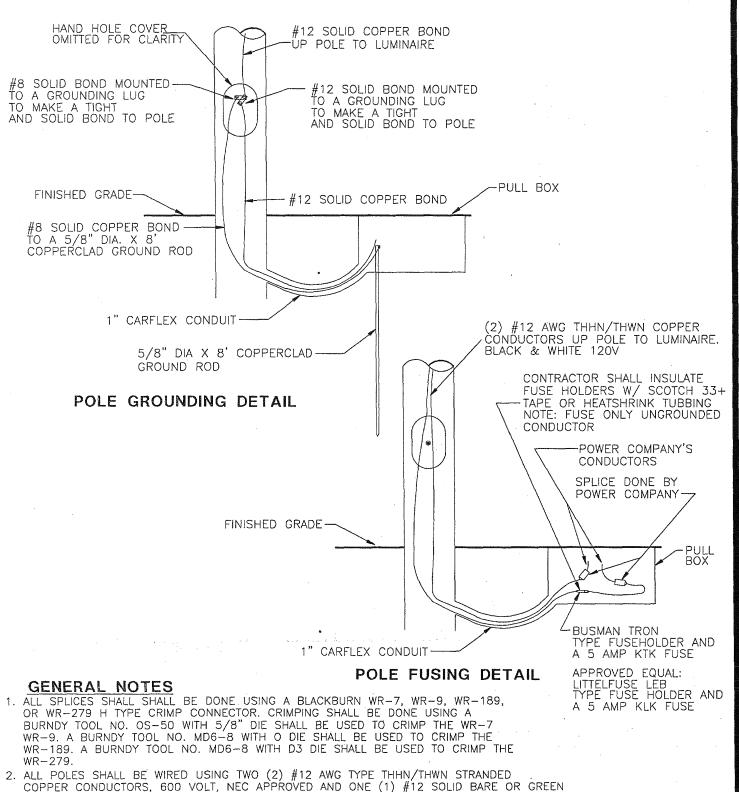
PRECISION

120V 8662-ELTD 240V 8672-ELTD

CITY OF AVONDALE

STREET LIGHT STANDARD PHOTO CONTROL DETAIL



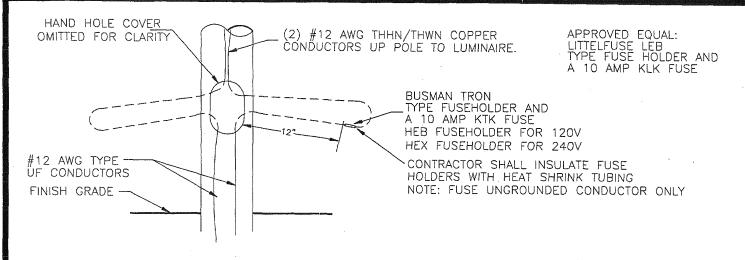


2. ALL POLES SHALL BE WIRED USING TWO (2) #12 AWG TYPE THHN/THWN STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) #12 SOLID BARE OR GREEN COPPER BOND WIRE. BOND WIRE SHALL RUN FROM THE LUMINAIRE TO A MINIMUM OF TWELVE (12) INCHES BELOW POLE HAND HOLE, FOR TERMINATION. CONDUCTORS SHALL RUN FROM LUMINAIRE TO PULL BOX.

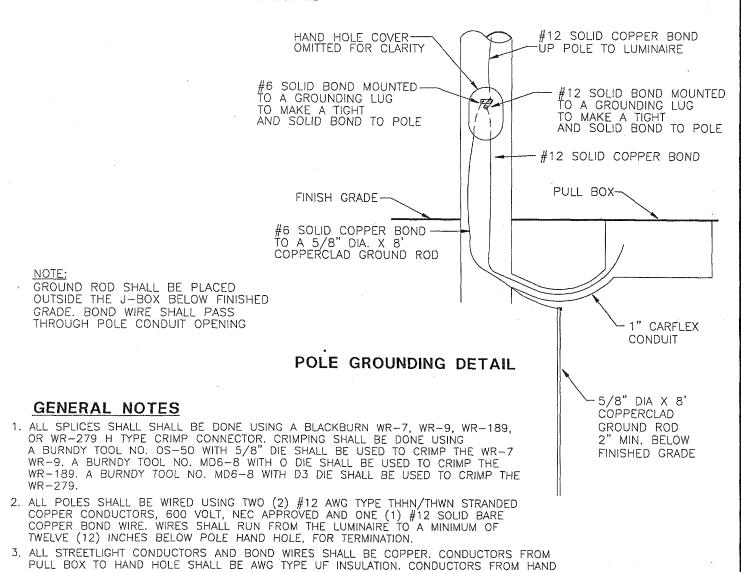
3. ALL STREETLIGHT CONDUCTORS AND BOND WIRES SHALL BE COPPER. CONDUCTORS FROM PULL BOX TO LUMINAIRE SHALL BE AWG TYPE THHN/THWN. ALL CONDUCTORS SHALL BE STRANDED AND ALL BOND WIRES SHALL BE SOLID.

CITY OF AVONDALE

STREET LIGHT STANDARD FUSING AND GROUNDING DETAIL SRP AREA DETAIL NO.



POLE FUSING DETAIL .



CITY OF AVONDALE

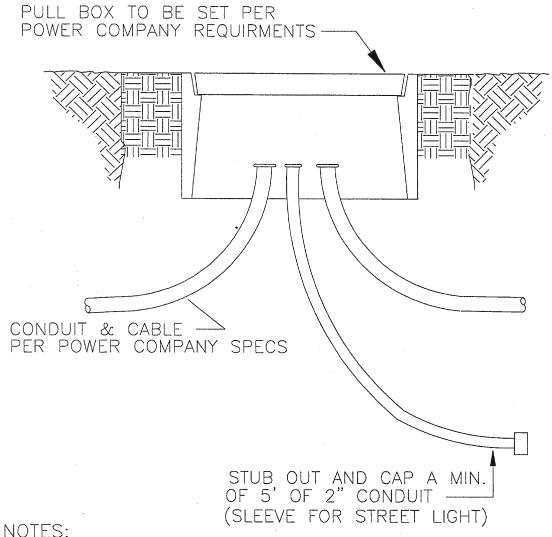
STRANDED AND ALL BOND WIRES SHALL BE SOLID.

STREET LIGHT STANDARD
FUSING AND GROUNDING DETAIL
APS AREA

HOLE TO LUMINAIRE SHALL BE AWG TYPE THHN/THWN. ALL CONDUCTORS SHALL BE

DETAIL NO.

NTS

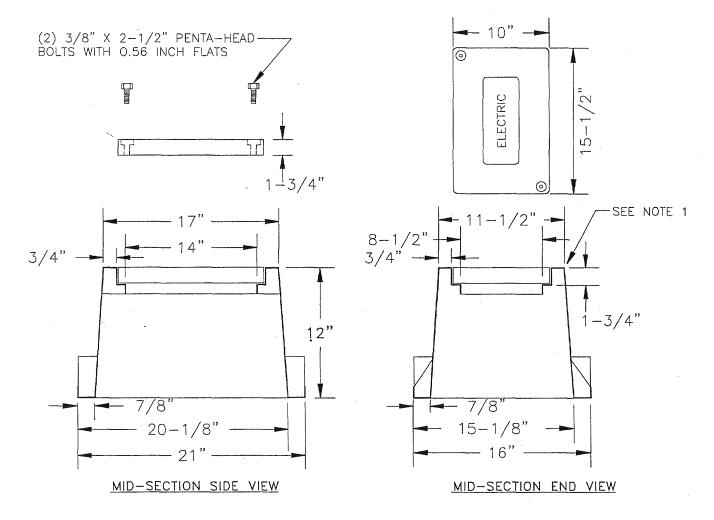


- BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
- WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREAS, 1/2" PRE-2 MOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND PULL BOX.
- CONDUCTORS SHALL HAVE A MINIMUM OF 36" SLACK FROM CONDUIT 3 AND BELL.
- WHERE A PULL BOX EXTENSION IS NEEDED, TWO PULL BOXES MAY 4 BE STACKED ONE ON TOP OF ANOTHER.

CITY OF AVONDALE

STREET LIGHT STANDARD SRP PULL BOX INSTALLATION DETAIL



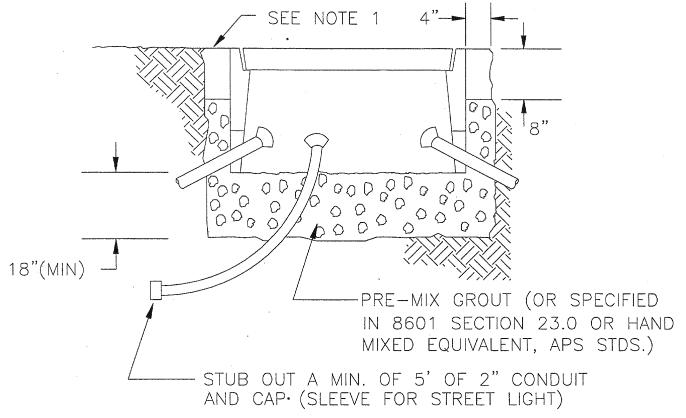


- 1. HANDHOLES ARE TO BE INSTALLED FLUSH WITH FINAL GRADE.
- 2. INSTALL THIS NONTRAFFIC—BEARING HANDHOLE OUTSIDE OF CONCRETED AREAS, OR PEDESTRIAN AND VEHICULAR TRAFFIC AREAS.
- 3. COMPACTION BENEATH AND AROUND HANDHOLE SHALL BE A MINIMUM OF 85 PERCENT OF THE MAXIMUM DENSITY PER MAG SPECIFICATIONS.
- 4. DIMENSIONS ARE APPROXIMATE DUE TO VARIATIONS BETWEEN MANUFACTURERS.
- 5. TOTAL WEIGHT OF BOX WITH COVER IS APPROXIMATELY 10 POUNDS.
- 6. THIS CLASS AND ITEM 0331-000960 INCLUDES THE BOX, COVER AND PENTA-HEAD BOLTS.
- 7. THIS HANDHOLE IS SUITABLE FOR USE WITHOUT JUNCTION BARS OR WITH THE TWO-POSITION JUNCTION BARS. OR FOR MAINTENANCE OF HANDHOLES EXISTING WITH FOUR-POSITION JUNCTION BARS.

CITY OF AVONDALE

STREET LIGHT STANDARD
PLASTIC PULL BOX DETAIL



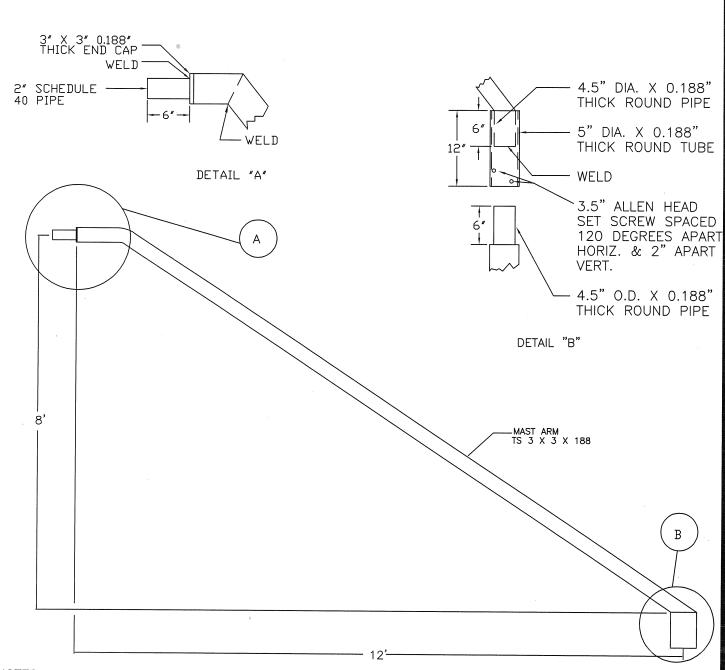


- 1 BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
- 2 WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREAS, 1/2" PRE-MOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND PULL BOX.
- 3 CONDUCTORS SHALL HAVE A MINIMUM OF 36" SLACK FROM CONDUIT AND BELL.
- 4 WHERE A PULL BOX EXTENSION IS NEEDED, TWO PULL BOXES MAY BE STACKED ONE ON TOP OF ANOTHER.

CITY OF AVONDALE

APS PULL BOX
INSTALLATION DETAIL





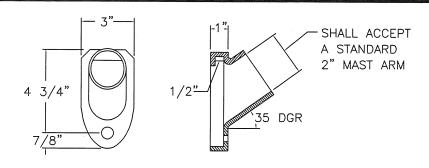
- 1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO PAINTING.
- 2. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
- 3. FINISH COAT SHALL BE VALSPAR 54 SERIES URETHANE (BRONZE) OR APPROVED EQUIVALENT.
- 4. USE WITH P2 ON ARTERIAL STREETS.

TOWN OF GILBERT

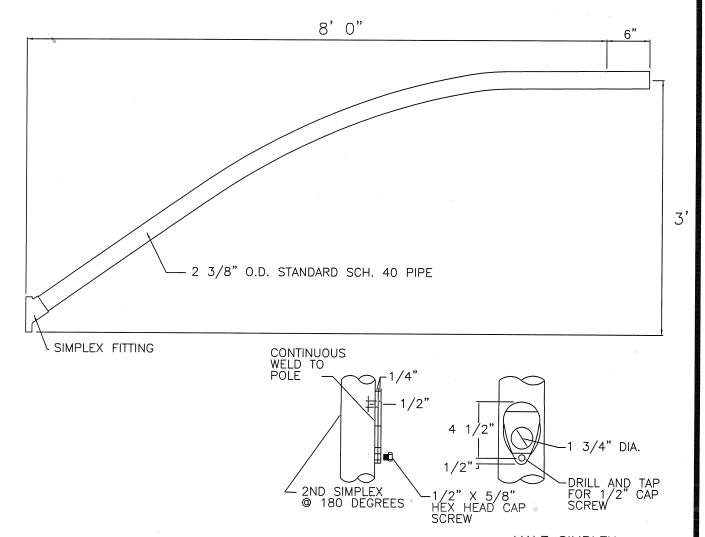
REVISED 1/2005

STREET LIGHT STANDARD 12' X 8' HIGH RISE ARM





FEMALE SIMPLEX



MALE SIMPLEX

NOTES:

- ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
 SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
 FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR APPROVED EQUIVALENT.

- 4. USE WITH P4.

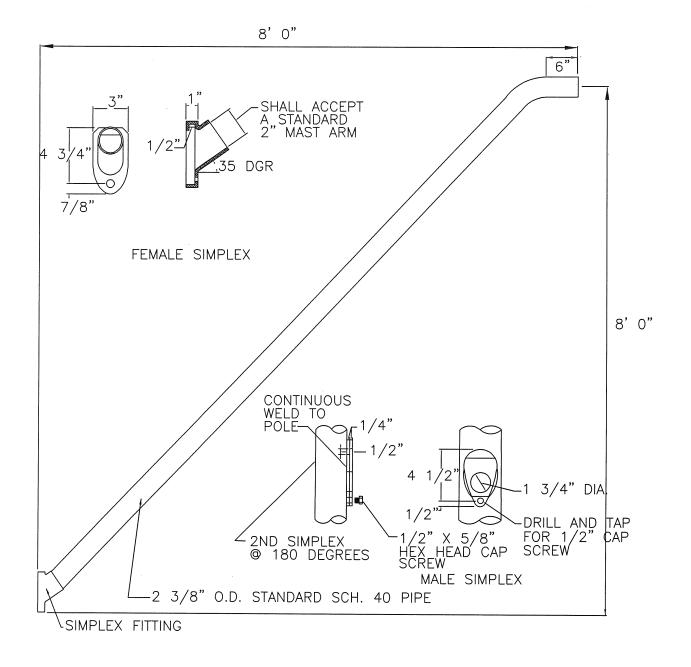
TOWN OF GILBERT

REVISED 1/2005

IGHT STANDARD

X 3' MAST ARM

DETAIL NO.



1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.

SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
 FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR APPROVED

EQUIVALENT.

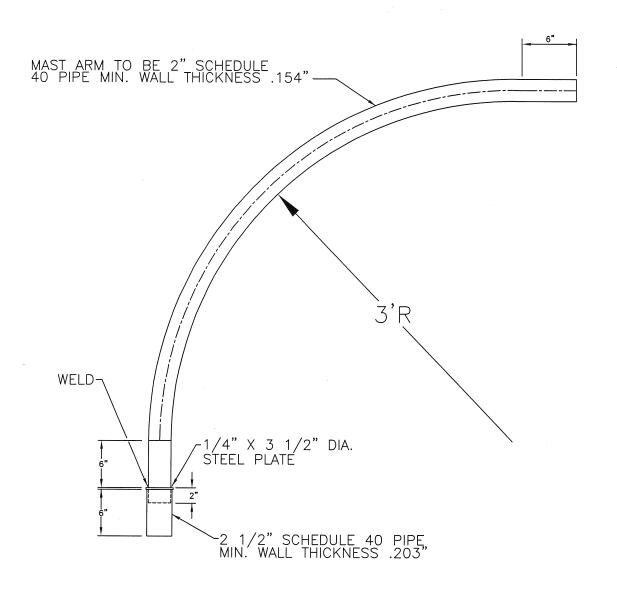
4. USE WITH P4 ON ARTERIAL STREETS TO MATCH EXISTING ONLY.

TOWN OF GILBERT

REVISED 1/2005

LIGHT STANDARD

X 8' HIGH RISE ARM FOR COBRA HEAD FIXTURE DETAIL NO.



- 1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO PAINTING.
- 2. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
- 3. PRIMER COAT IS TO BE URECAL NO. 1001, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 1 MIL.
 4. FINISH COAT SHALL BE URECAL 9179 (GRAY) OR APPROVED EQUIVALENT.
 5. USE WITH P5 WHERE THIS STYLE ALREADY EXISTS.

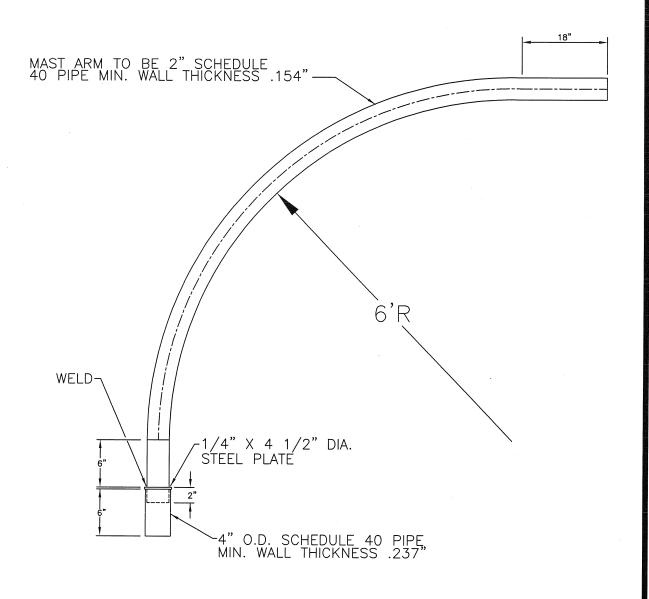
TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD

RADUIS ARM FOR COBRA HEAD FIXTURE DETAIL NO.



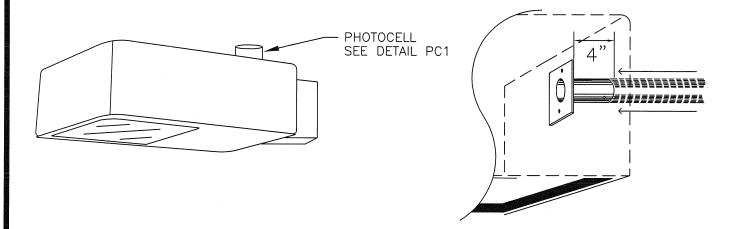


- 1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO PAINTING.
- 2. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
- 3. PRIMER COAT IS TO BE URECAL NO. 1001, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 1 MIL.
- 4. FINISH COAT SHALL BE URECAL 9179 (GRAY) OR APPROVED EQUIVALENT. 5. USE WITH P6 WHERE THIS STYLE ALREADY EXISTS.

TOWN OF GILBERT REVISED 1/2005

STREET LIGHT STANDARD 6' RADUIS ARM FOR COBRA HEAD FIXTURE

DETAIL NO.



HOUSING SHALL BE OF ONE PIECE, FORMED ALUMINUM ON UPPER PORTION OF UNIT. DOOR FRAME TO BE MANUFACTURED OF EXTRUDED ALUMINUM WITH CONCEALED HINGES AND TWO QUICK RELEASE LATCHES. ALL ELECTRICAL COMPONENTS SHALL BE MOUNTED ON A REMOVABLE BALLAST DRAWER ASSEMBLY AND USE QUICK DISCONNECT TYPE POWER INPUT PLUG.

SLIP FITTER SHALL HAVE 3 RECESSED ALLEN BOLTS TO TIGHTEN SLIP FITTER AGAINST TENON.

FINISH - EXTERNAL FINISH SHALL BE OF THERMOSET ENAMEL, BRONZE IN COLOR.

ALL FIXTURES SHALL BE SUPPLIED WITH PHOTOCELL SOCKET, PHOTOCELL AND LAMP.

ALL FIXTURES SHALL HAVE A DECAL SHOWING WATTAGE OF FIXTURE WITH 2" BLACK LETTERING ON YELLOW BACKGROUND ATTACHED BETWEEN LENSE AND POLE ON BOTTOM OF FIXTURE. THIS DECALL SHALL BE VISIBLE FROM THE STREET.

APPROVED MANUFACTURERS ARE:

GE LIGHTING SYSTEMS

DSMT10S0A2GM2DB, 120/240 VOLT BALLAST (100 WATT)

DSMT15S0A2GM3DB, 120/240 VOLT BALLAST (150 WATT) DSMT25S0A2GM3DB, 120/240 VOLT BALLAST (250 WATT)

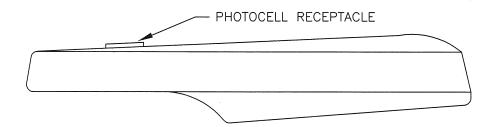
OTHER APPROVED MANUFACTURER:

AMERICAN ELECTRIC

- *C-530089 120/240 VOLT BALLAST (100 WATT)
- *C-530090 120/240 VOLT BALLAST (150 WATT)
- *C-530091 120/240 VOLT BALLAST (250 WATT)

*THESE FIXTURES DO NOT REQUIRE A SLIP FITTER.

TOWN OF GILBERT STREET LIGHT STANDARD DETAIL NO. HPS FIXTURE REVISED 1/2005 NTS



FIXTURE HOUSING SHALL BE OF DIE CAST ALUMINUM WITHOUT SEAMS OR WELDS ON UPPER HALF OF UNIT. ALL ELECTRICAL COMPONENTS SHALL BE SECURELY ATTACHED TO THE UPPER HALF OF THE UNIT. LOWER HALF OF HOUSING SHALL BE HINGED ON INTEGRALLY CAST PIN HINGE AND SECURED WITH LATCH FOR ONE HANDED OPERATION. EXTERNAL FINISH SHALL BE BAKED ENAMEL, COLOR TO MATCH POLE, APPLIED BY ELECTROSTATIC PROCESS.

MOUNTING SHALL BE BY INTEGRAL SLIP FITTER FOR 1 3/8" TO 2 3/8" DIAMETER MAST ARMS.

FIXTURE SHALL MEET I.E.S. TYPE II OR III MEDIUM CUT-OFF.

APPROVED MANUFACTURERS:

AMERICAN ELECTRIC

100 WATT HPS - 113-56212-DJ

150 WATT HPS - 113-56262-DJ

250 WATT HPS - 125-0H133-DJ

400 WATT HPS - 125-DH143-DJ (PRIDR APPROVAL REQUIRED)

GENERAL ELECTRIC

100 WATT HPS - M2AC10S0N2GMC31

150 WATT HPS - M2AC15S0N2GMC31

250 WATT HPS - M2AC25S0N2GMC31

400 WATT HPS - M4AC40S0N2GMC31 (PRIOR APPROVAL REQUIRED)

ALL FIXTURES MUST BE SUPPLIED WITH PHOTOCELL RECEPTACLE, PHOTOCELL AND LAMP.

CITY TO DETERMINE WHEN FIXTURE IS TO BE USED.

TOWN OF GILBERT

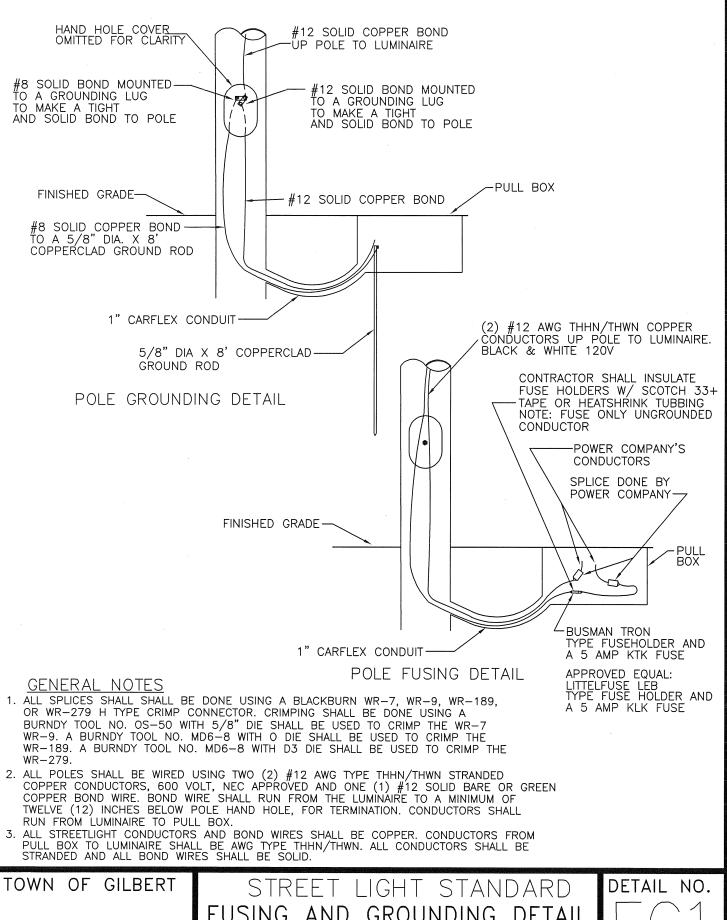
REVISED 1/2005

STREET LIGHT STANDARD

HPS FIXTURE COBRA HEAD

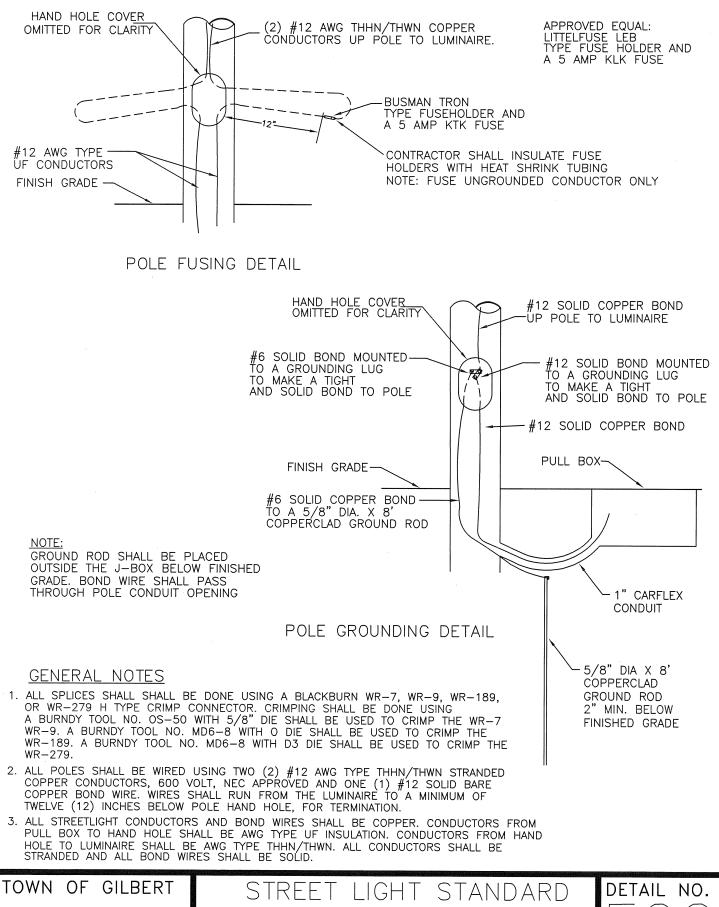
DETAIL NO.





REVISED 1/2005

FUSING AND GROUNDING DETAIL SRP AREA

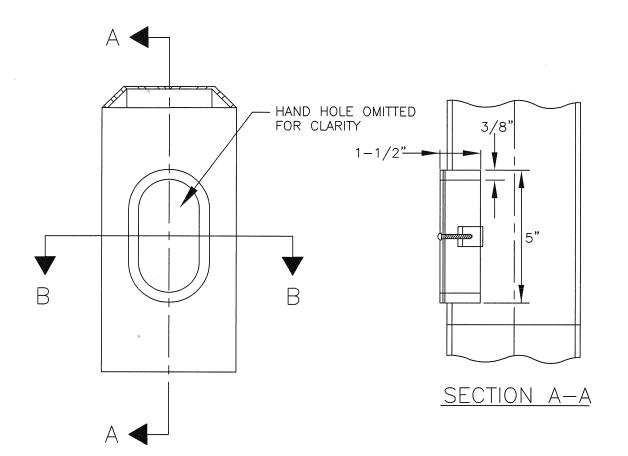


FUSING AND GROUNDING DETAIL

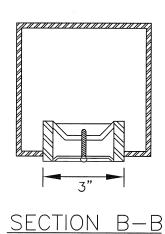
APS AREA

F G 2

REVISED 1/2005



*HAND HOLE DETAIL



*SEE POLE DETAIL FOR HEIGHT OF HAND HOLE ABOVE FINISHED GRADE.

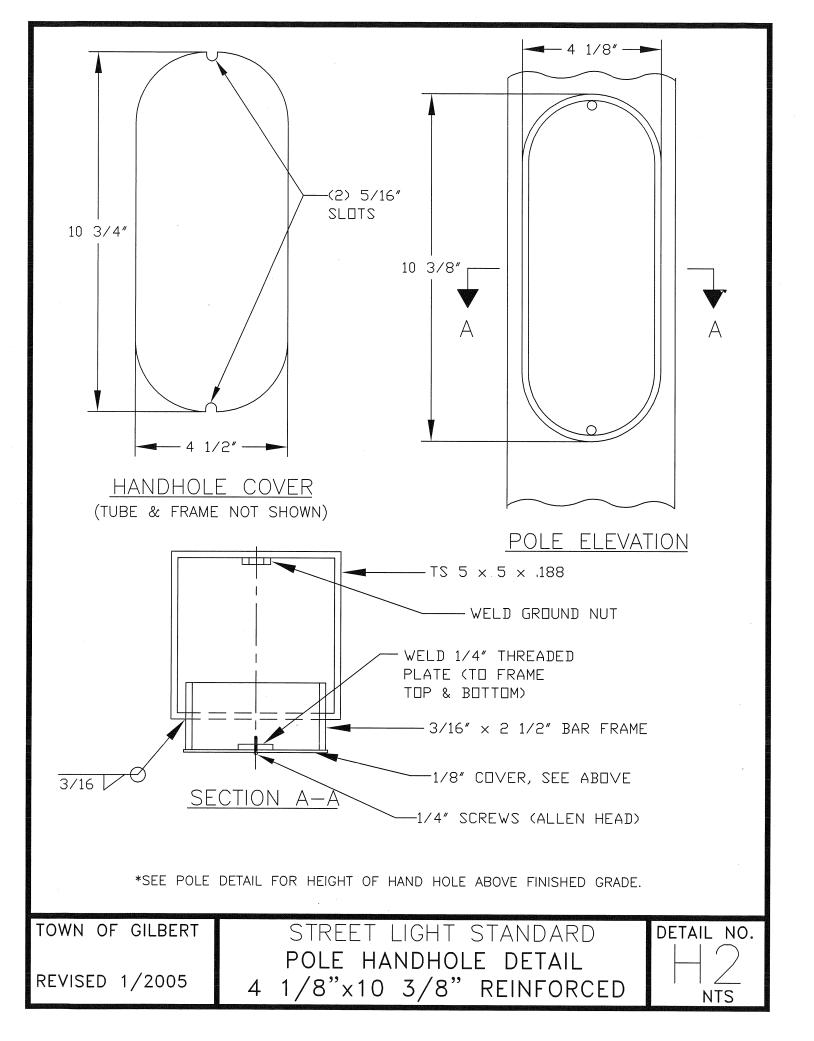
TOWN OF GILBERT

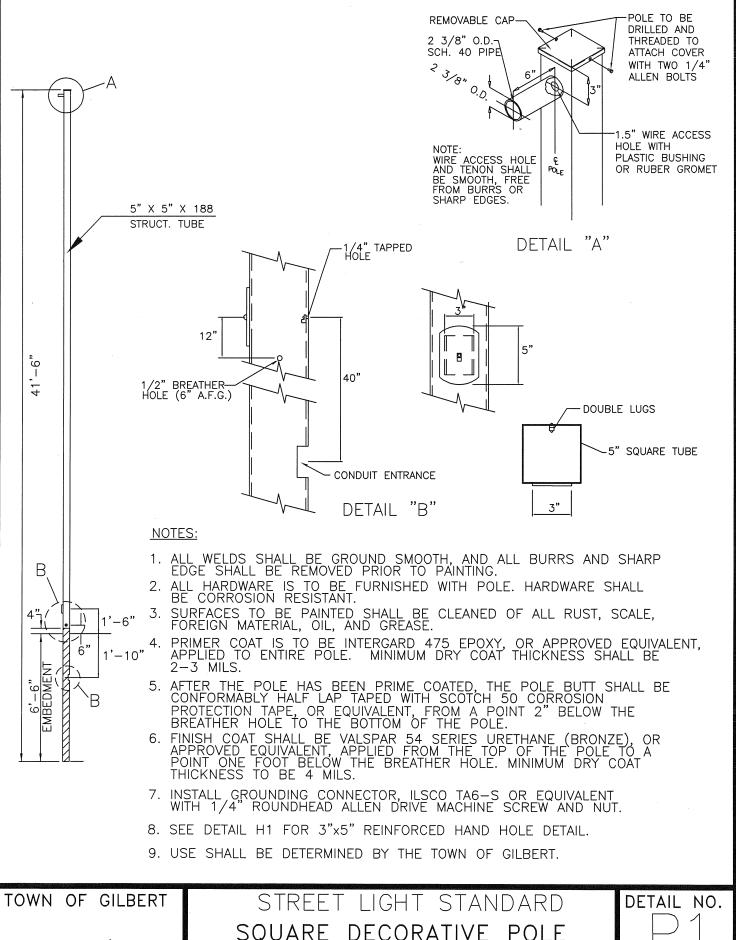
REVISED 1/2005

STREET LIGHT STANDARD

POLE HANDHOLE DETAIL 3"x5" REINFORCED

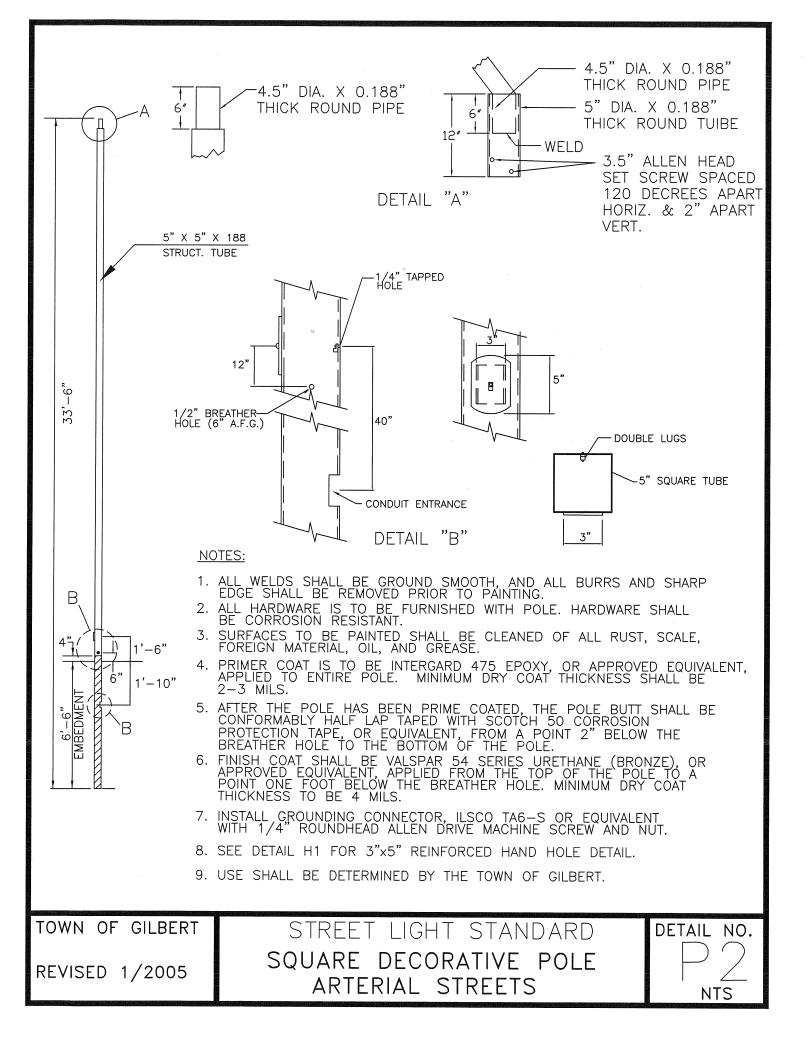
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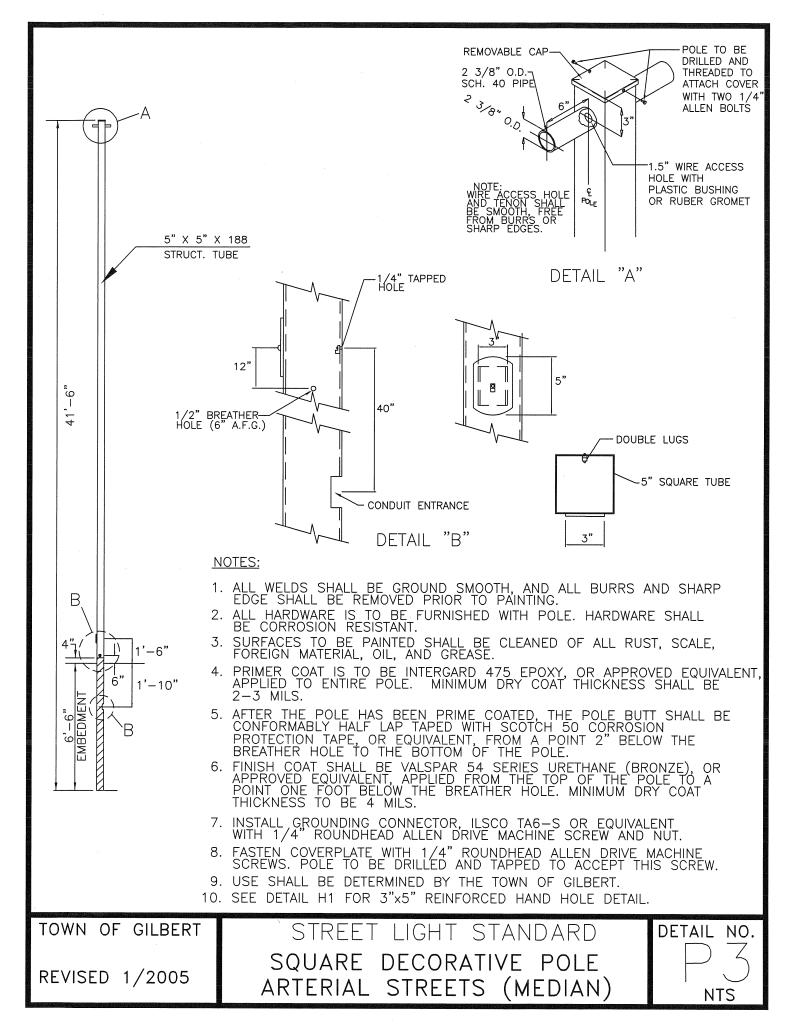


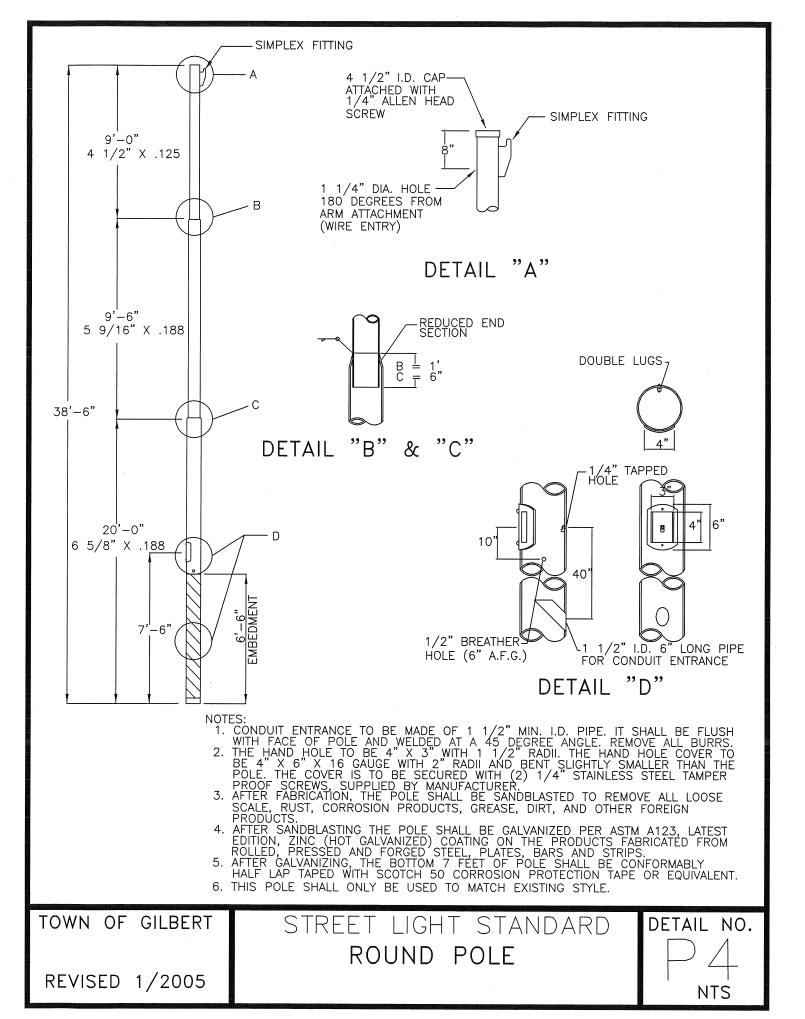


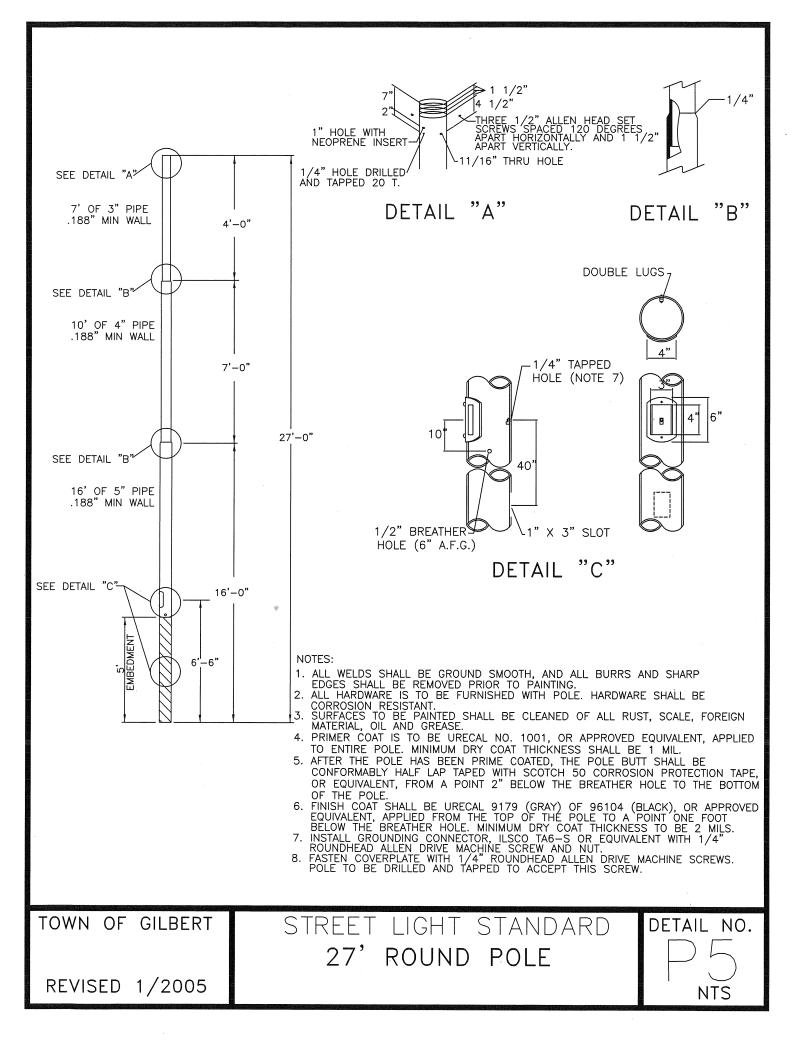
REVISED 1/2005

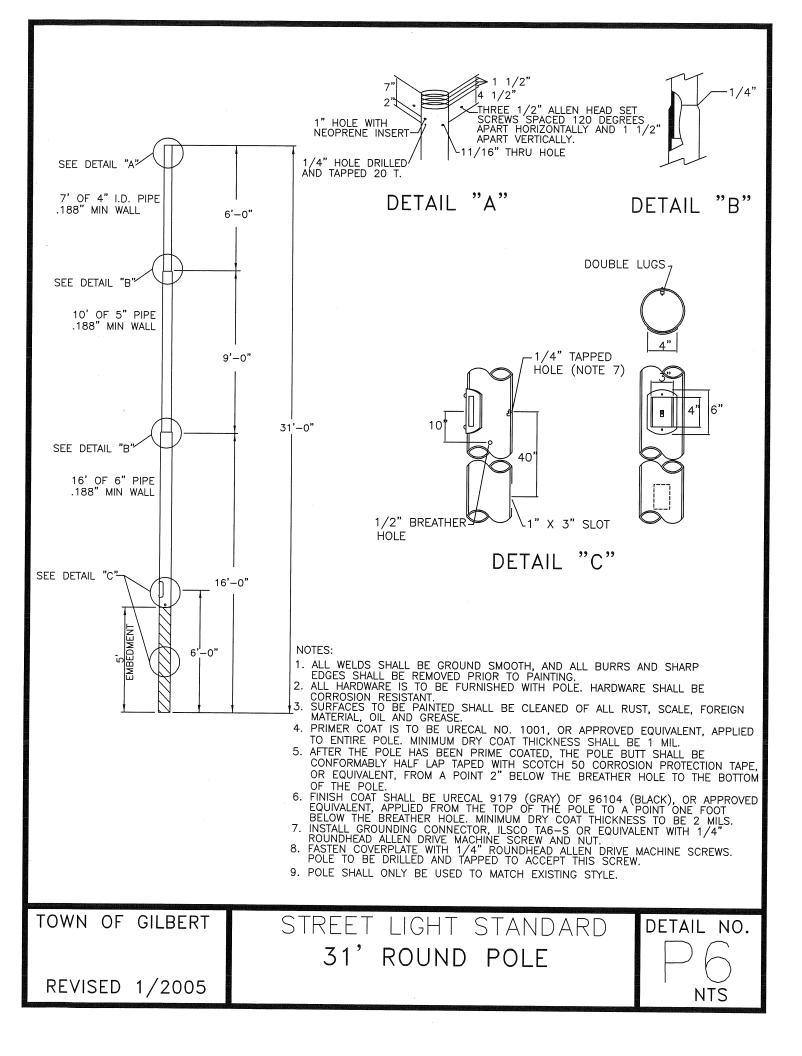
DECORATIVE POLE SQUARE RESIDENTIAL STREETS

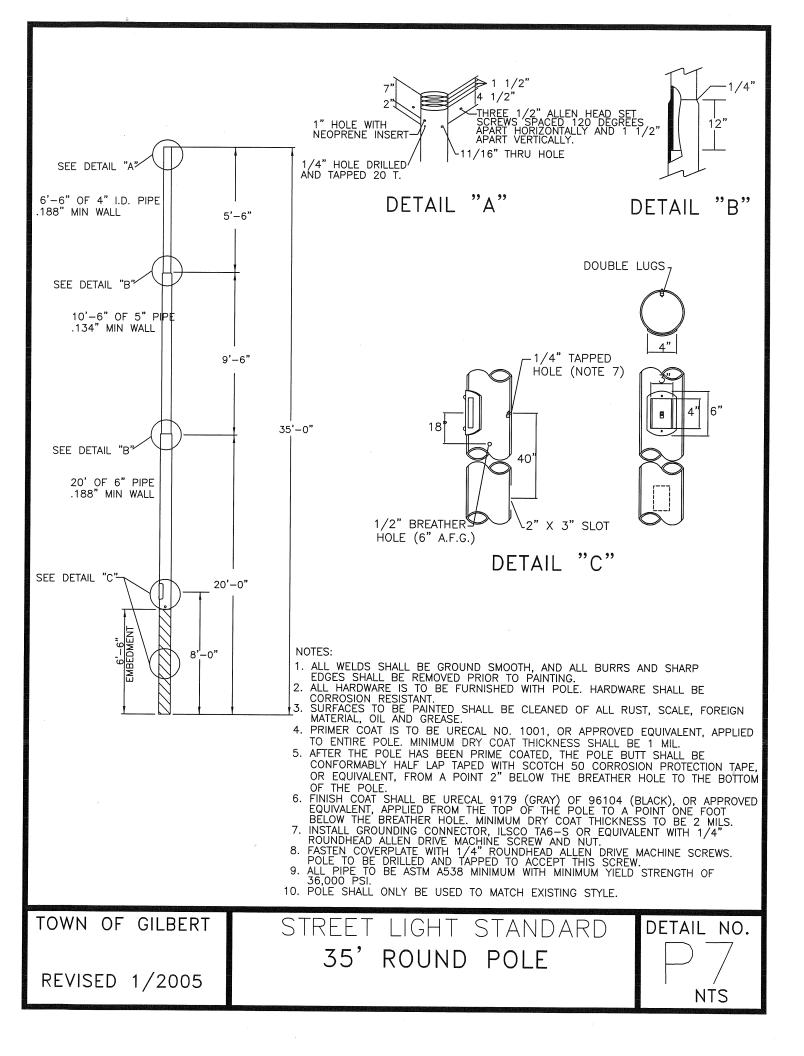


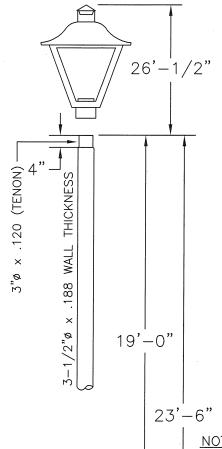












14"

22"

54"

WATTS	TYPE	VOLTS	INITIAL LUMENS	MOUNTING HEIGHT
150	HPS	120	16000	20'-4"

APPROVED MANUFACTURERS:

AMERICAN ELECTRIC

150 WATT HPS - 247-56762-6

GENERAL ELECTRIC

150 WATT HPS - TRCR15S1M2GMC2BL

QTY	MATERIAL LIST FOR EACH POLE			
1	CLAMP GROUND ROD 5/8			
1	ROD COPPERCLAD GRD 5/8 X 8			
1	WIRE BARE #6 SOLID CU			
1	POLE 23'-6" STEEL			
1	CONTROL PHOTO-ELECT 120V			
1	LUMINAIRE 150W HPS			
1	LAMP 150W HPS			

NOTES:

- 1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGE SHALL BE REMOVED PRIOR TO PAINTING.
- 2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
- 3. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
- 4. PRIMER COAT IS TO BE INTERGARD 475 EPOXY, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 2-3 MILS.
- 5. AFTER THE POLE HAS BEEN PRIME COATED, THE POLE BUTT SHALL BE CONFORMABLY HALF LAP TAPED WITH SCOTCH 50 CORROSION PROTECTION TAPE, OR EQUIVALENT, FROM A POINT 2" BELOW THE BREATHER HOLE TO THE BOTTOM OF THE POLE.
- 6. FINISH COAT SHALL BE VALSPAR 54 SERIES URETHANE (BLACK), OR APPROVED EQUIVALENT, APPLIED FROM THE TOP OF THE POLE TO A POINT ONE FOOT BELOW THE BREATHER HOLE. MINIMUM DRY COAT THICKNESS TO BE 4 MILS.
- INSTALL GROUNDING CONNECTOR, ILSCO TA6—S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
- B. FASTEN COVERPLATE WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREWS. POLE TO BE DRILLED AND TAPPED TO ACCEPT THIS SCREW.
- 9. USE SHALL BE DETERMINED BY THE TOWN OF GILBERT.
- 10. ADJUST PHOTO EYE TO FACE NORTH.

TOWN OF GILBERT

BREATHER HOLE ——

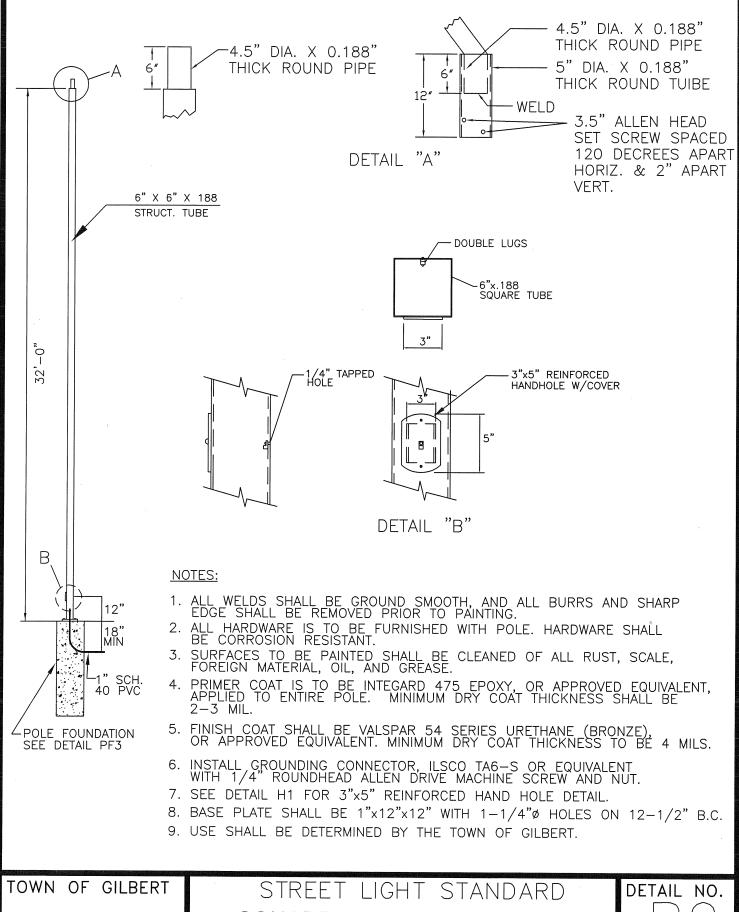
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REVISED 1/2005

STREET LIGHT STANDARD

POST TOP STREET LIGHT RESIDENTIAL STREETS

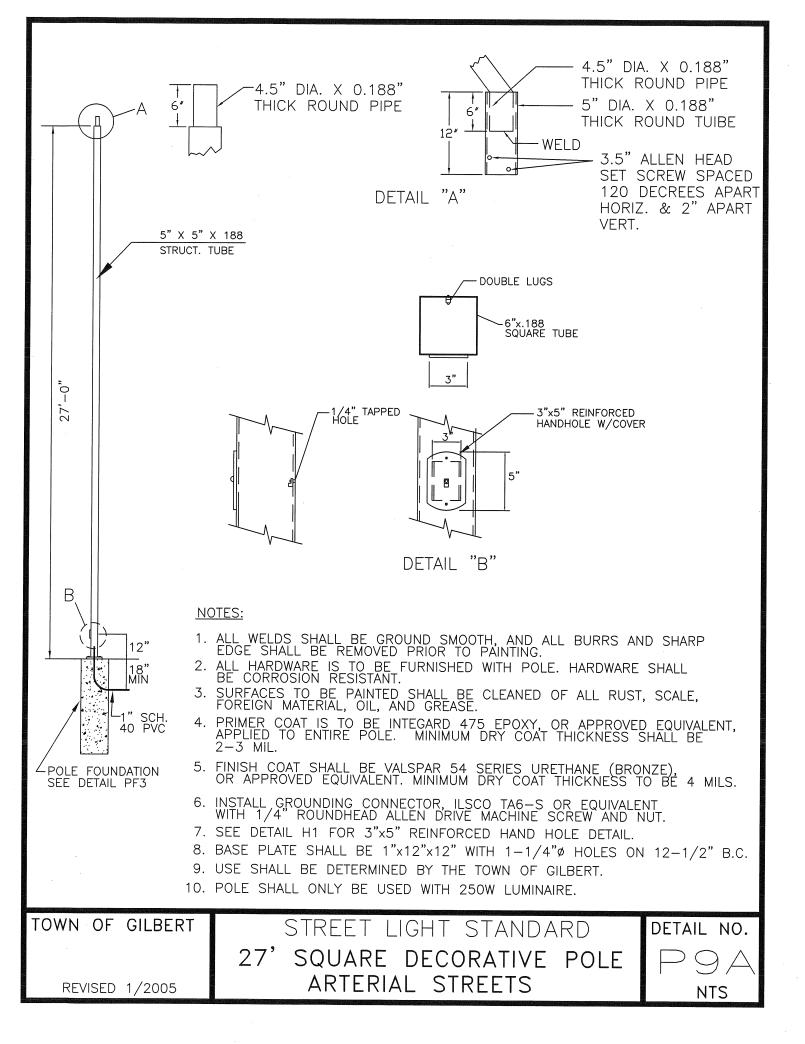
DETAIL NO.

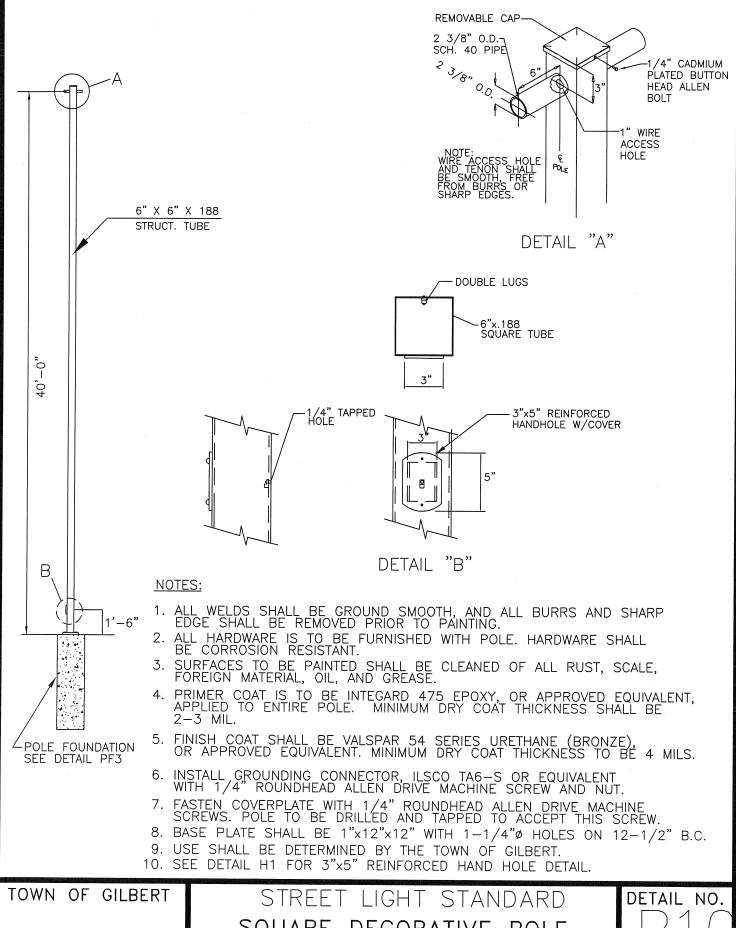


REVISED 1/2005

SQUARE DECORATIVE POLE ARTERIAL STREETS



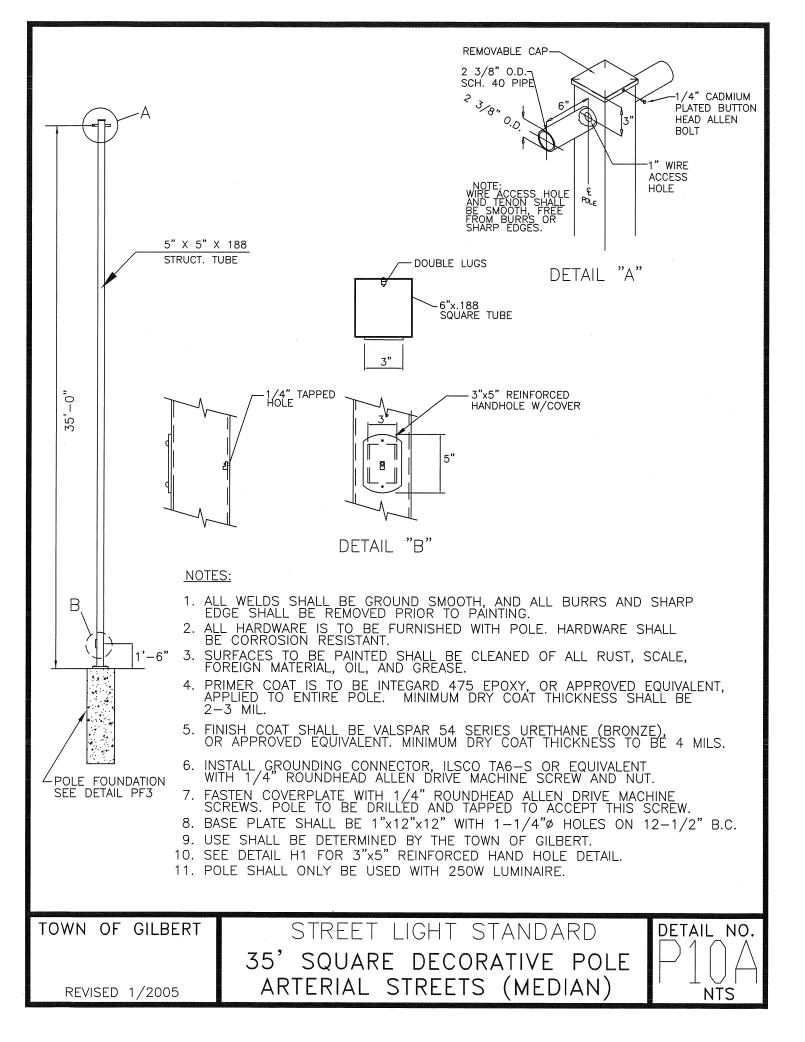


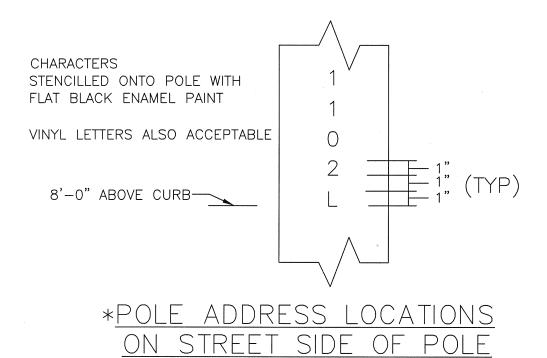


REVISED 1/2005

SQUARE DECORATIVE POLE ARTERIAL STREETS (MEDIAN)







*IF IN SRP AREAS, LETTERING IS DONE BY SRP.

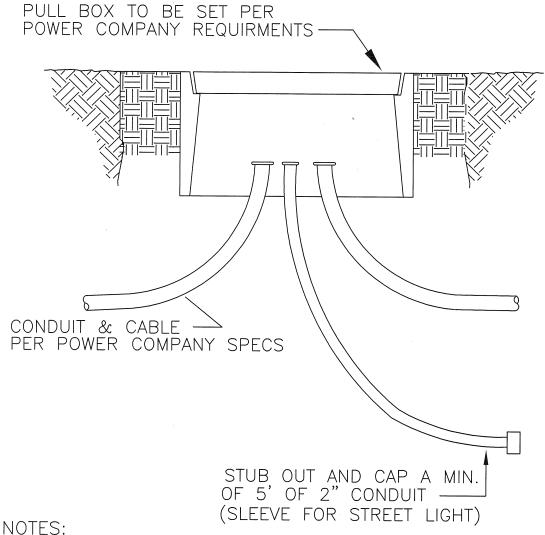
TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD
POLE NUMBER DETAIL

DETAIL NO.





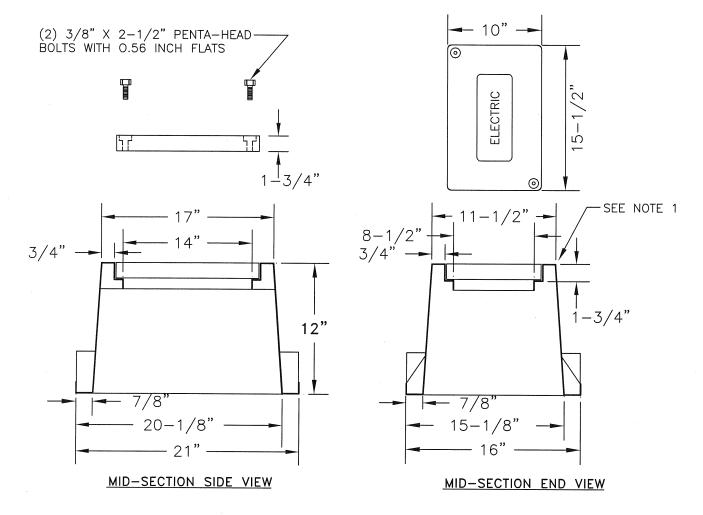
- BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
- WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREAS, 1/2" PRE-2 MOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND PULL BOX.
- 3 CONDUCTORS SHALL HAVE A MINIMUM OF 36" SLACK FROM CONDUIT AND BELL.
- WHERE A PULL BOX EXTENSION IS NEEDED, TWO PULL BOXES MAY BE STACKED ONE ON TOP OF ANOTHER.

TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD SRP PULL BOX INSTALLATION DETAIL

DETAIL NO.



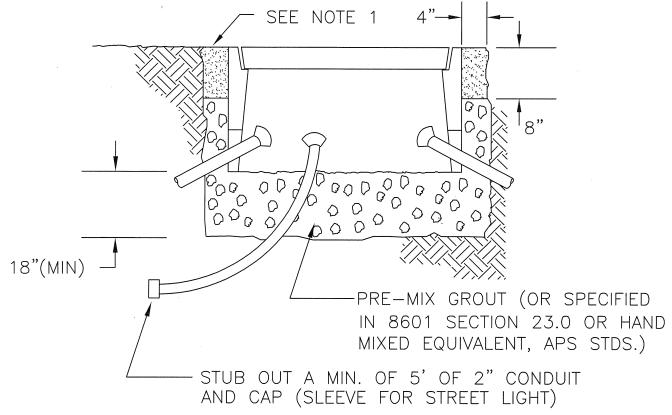
- 1. HANDHOLES ARE TO BE INSTALLED FLUSH WITH FINAL GRADE.
- 2. INSTALL THIS NONTRAFFIC—BEARING HANDHOLE OUTSIDE OF CONCRETED AREAS, OR PEDESTRIAN AND VEHICULAR TRAFFIC AREAS.
- 3. COMPACTION BENEATH AND AROUND HANDHOLE SHALL BE A MINIMUM OF 85 PERCENT OF THE MAXIMUM DENSITY AS DEFINED IN 1000.
- 4. DIMENSIONS ARE APPROXIMATE DUE TO VARIATIONS BETWEEN MANUFACTURERS.
- 5. TOTAL WEIGHT OF BOX WITH COVER IS APPROXIMATELY 10 POUNDS.
- 6. THIS CLASS AND ITEM 0331-000960 INCLUDES THE BOX, COVER AND PENTA-HEAD BOLTS.
- 7. THIS HANDHOLE IS SUITABLE FOR USE WITHOUT JUNCTION BARS OR WITH THE TWO-POSITION JUNCTION BARS OR FOR MAINTENANCE OF HANDHOLES EXISTING WITH FOUR-POSITION JUNCTION BARS.

TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD
PLASTIC PULL BOX DETAIL

DETAIL NO.



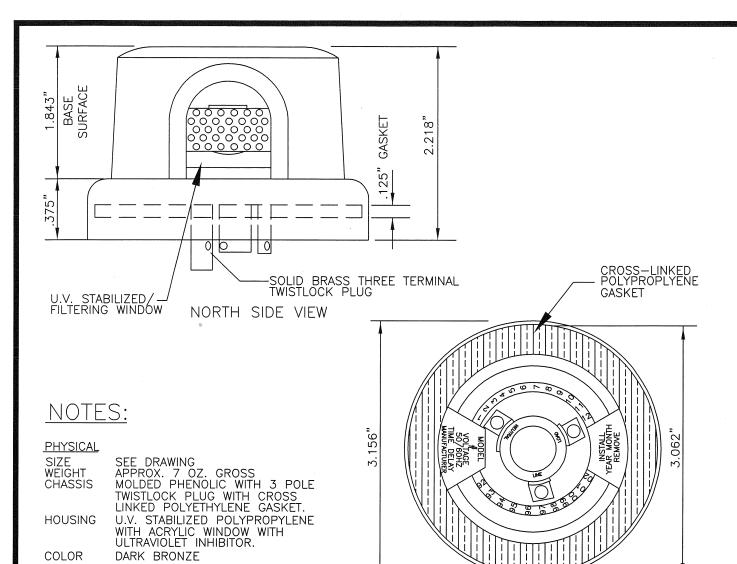
- 1 BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
- 2 WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREAS, 1/2" PRE-MOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND PULL BOX.
- 3 CONDUCTORS SHALL HAVE A MINIMUM OF 36" SLACK FROM CONDUIT AND BELL.
- 4 WHERE A PULL BOX EXTENSION IS NEEDED, TWO PULL BOXES MAY BE STACKED ONE ON TOP OF ANOTHER.

TOWN OF GILBERT

REVISED 1/2005

APS PULL BOX
INSTALLATION DETAIL





ELECTRICAL

SUPPLY VOLTAGE

RATINGS LOAD INRUSH CURRENT

OPERATING LEVELS

CONTROL POWER
DIELECTRICAL STRENGTH

LIGHT ADDECTOR

LIGHT ARRESTOR

PHOTOCELL TIME DELAY

ENVIRONMENTAL

AMBIENT TEMPERATURE RANGE

MOISTURE RESISTANCE

105-130 VOLTS, 50/60HZ AC

1800VA MAX. SPST, N.C.

130 AMPERES AT 120 VOLTS 65 AMPERES AT 240 VOLTS TURN ON AVERAGE 1FC 2FC

TURN ON AVERAGE 1FC. .2FC TURN ON MAXIMUM 1.8FC

RATIO AVERAGE 3
3.2 WATTS, MAX. (2.75 AVERAGE) AT 240 VAC.

5 KV MIN. BETWEEN ANY CURRENT CARRYING PART AND METAL MOUNTING SURFACE.

DELUXE—CONTROLLED TYPE EXPULSION ENCLOSED 2.0 KV SPARK OVER MIN. TYPE 10,000 AMPS FOLLOW THROUGH

HERMETICALLY SEALED CDS CELL, MINIMUM SURFACE AREA .75 SQUARE INCHES

OFF CYCLE ONLY, 3 TO 30 SECONDS

-65 DEGREES FAHRENHEIT TO +158 DEGREES FAHRENHEIT

100% RELATIVE HUMIDITY

APPROVED MANUFACTURERS:

FISHER PIERCE

120V 7762-EPSTD

PRECISION

BOTTOM VIEW

120V 8662-ELTD

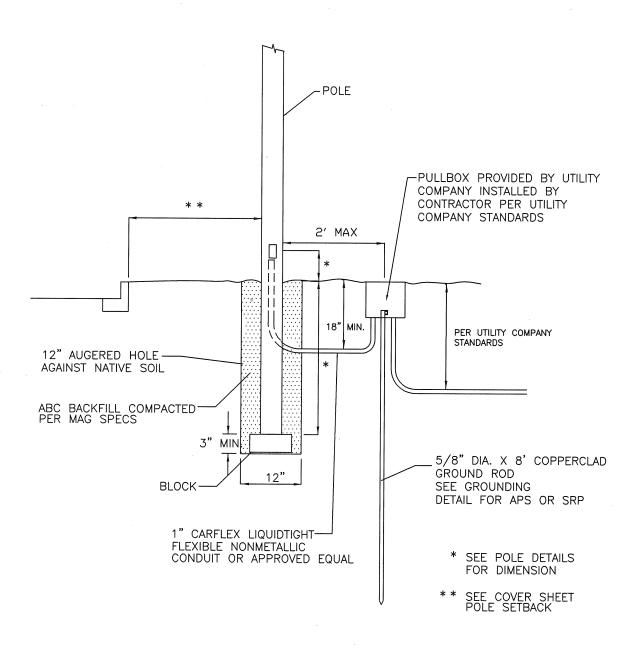
TOWN OF GILBERT

STREET LIGHT STANDARD

PHOTO CONTROL DETAIL

DETAIL NO.

REVISED 1/2005

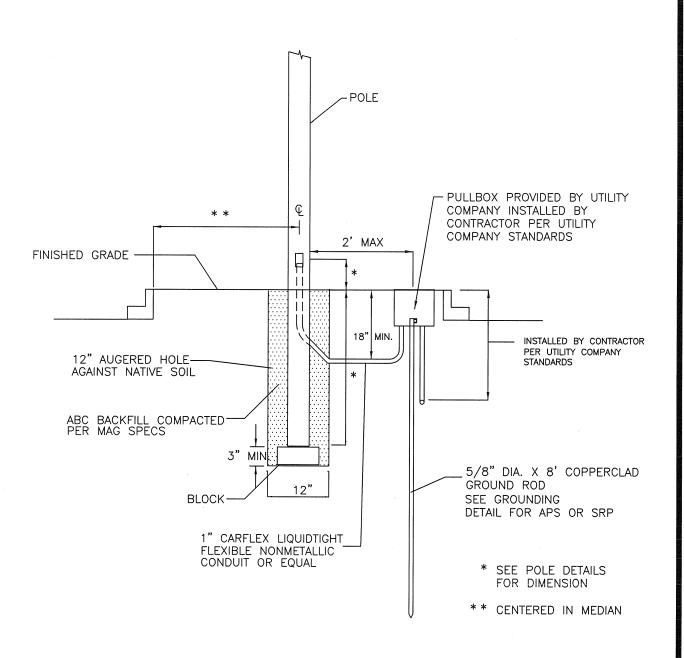


TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD EMBEDDED POLE DETAIL





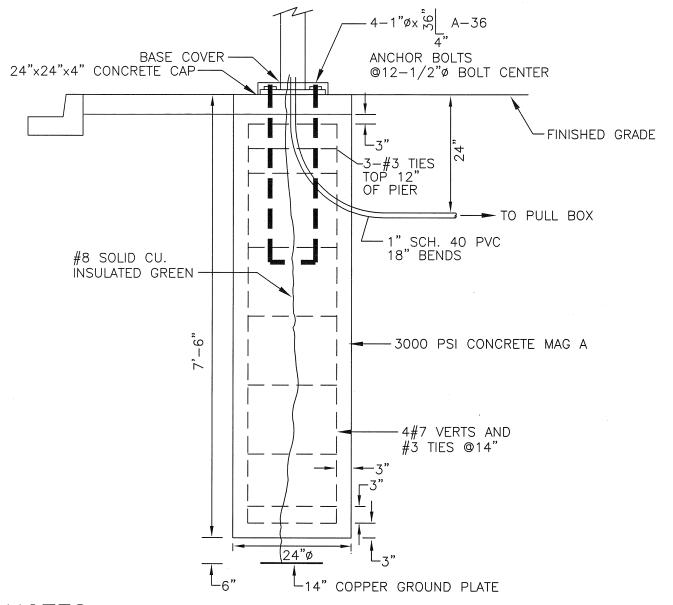
TOWN OF GILBERT

REVISED 1/2005

STREET LIGHT STANDARD

EMBEDDED POLE DETAIL (MEDIAN)





NOTES:

- REINF A615 GRADE 60 EXCEPT #3 GRADE 40 TOP OF FOUNDATION SHALL BE FINISHED WITH A SMOOTH SURFACE WITH A 1/2" ROUND EDGE. 2.
- 3. POLE FOUNDATION SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES.
- ALL FINISHED POLE FOUNDATIONS SHALL BE AT SIDEWALK GRADE.
- 5. ANCHOR BOLTS SHALL BE FULLY GALVINIZED PER ASTM A-153.
- CONCRETE PLACEMENT SHALL FOLLOW MAG SPECIFICATIONS. 6.
- 7.
- DO NOT FREEFALL CONCRETE IN EXCESS OF 5'.

 A VIBRATOR SHALL BE USED TO DISTRIBUTE CONCRETE & REDUCE AIRVOIDS.

 MAXIMUM SLUMP SHALL NOT EXCEED 5".
- 9.
- CAP SHALL BE POURED SEPERATELY WITH 3000 PSI CONCRETE.

TOWN OF GILBERT

STREET LIGHT STANDARD CONCRETE FOUNDATION DETAIL

DETAIL NO. NTS

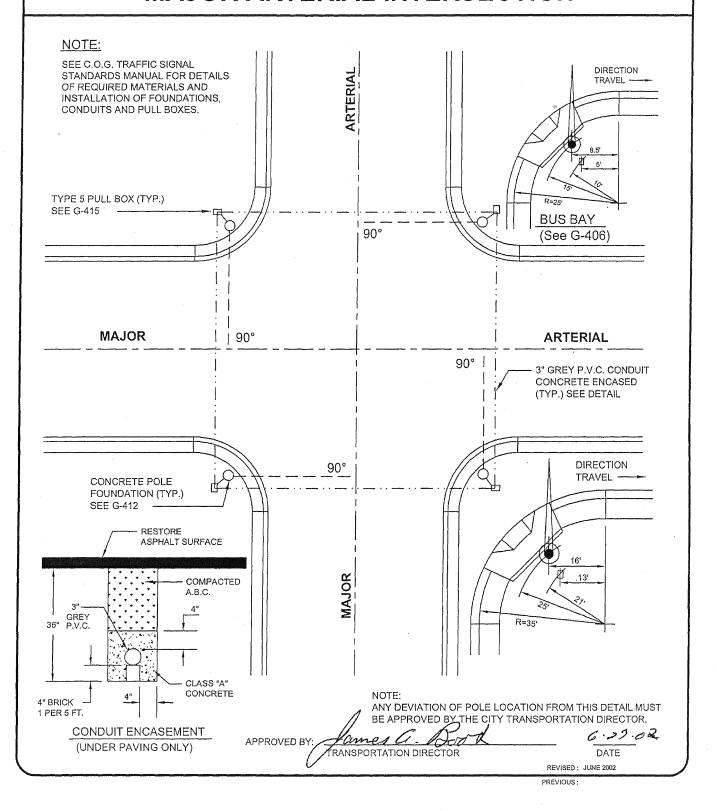
REVISED 1/2005

STANDARD DETAIL G-403

CITY OF GLENDALE TRANSPORTATION



CONDUIT AND POLE BASE INSTALLATION STANDARDS MAJOR ARTERIAL INTERSECTION

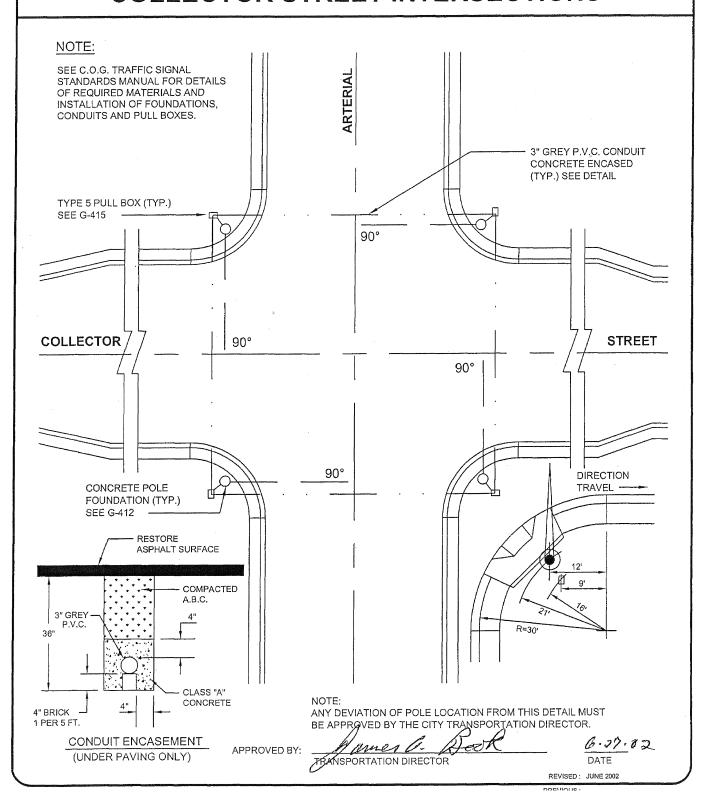


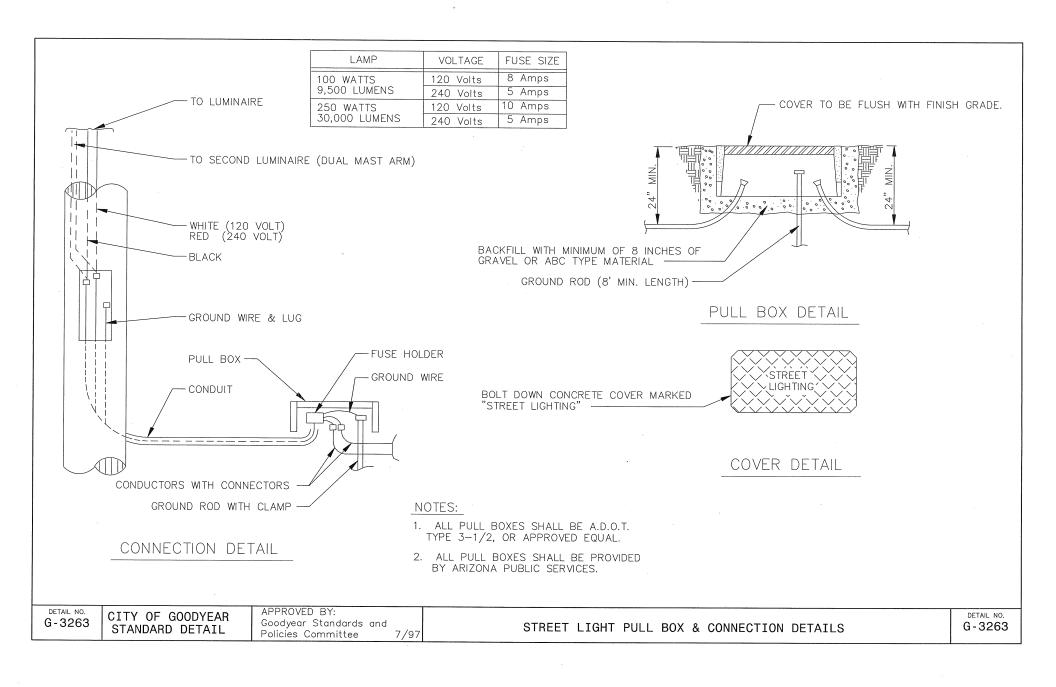
STANDARD DETAIL G-404

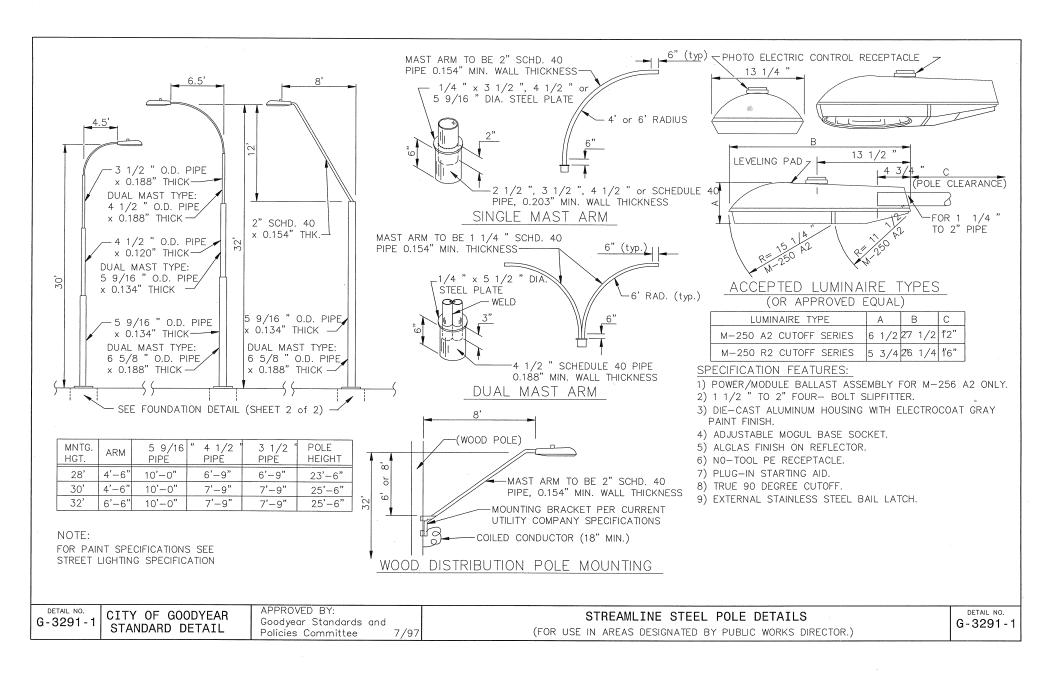
CITY OF GLENDALE TRANSPORTATION

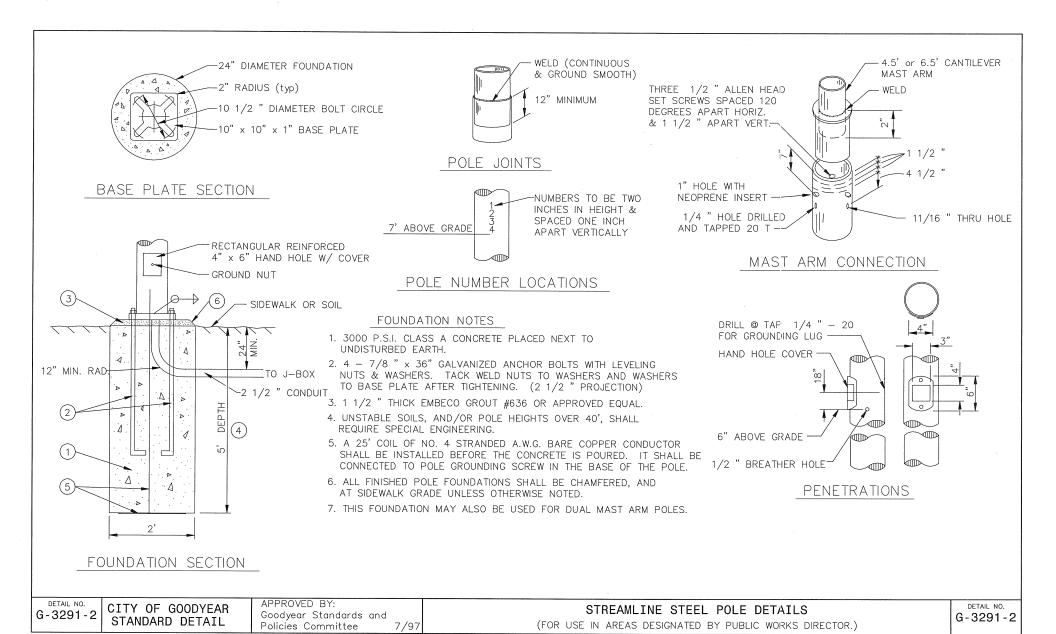


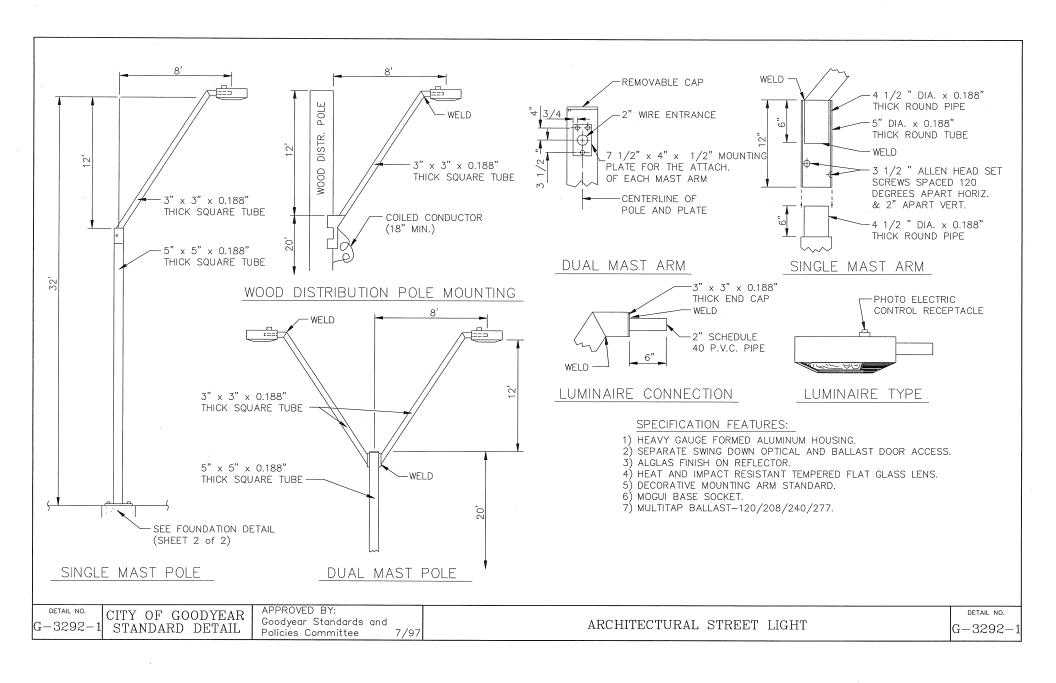
CONDUIT AND POLE BASE INSTALLATION STANDARDS FOR ARTERIAL AND COLLECTOR STREET INTERSECTIONS

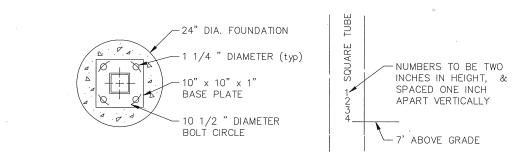






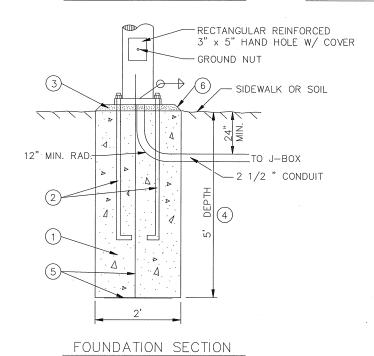






BASE PLATE SECTION

POLE NUMBER LOCATIONS



GENERAL NOTES

- 1. POLES ARE TO BE DESIGNED PER A.A.S.H.T.O. 80 SPECIFICATIONS.
- 2. ALL TUBING IS TO BE A.S.T.M. A500 GRADE B (46,000 P.S.I. MIN. YIELD).
- 3. ACCEPTED POLE MANUFACTURER: CEM-TEC CORPORATION OR APPROVED EQUAL.
- 4. ACCEPTED LUMINAIRE MANUFACTURER:

 AMERICAN ELECTRIC SERIES 153/154 OR G.E. DECASHIELD Ⅲ,

 OR APPROVED EQUAL.
- 5. FOR PAINT SPECIFICATIONS SEE STREET LIGHTING SPECIFICATION.

FOUNDATION NOTES

- 1. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
- 2. 4 7/8 " x 36" GALVANIZED ANCHOR BOLTS WITH LEVELING NUTS & WASHERS. TACK WELD NUTS TO WASHERS AND WASHERS TO BASE PLATE AFTER TIGHTENING. (2 1/2 " PROJECTION)
- 3. 1 1/2 " THICK EMBECO GROUT #636 OR APPROVED EQUAL.
- 4. UNSTABLE SOILS, AND/OR POLE HEIGHTS OVER 40', SHALL REQUIRE SPECIAL ENGINEERING.
- 5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED. IT SHALL BE CONNECTED TO POLE GROUNDING SCREW IN THE BASE OF THE POLE.
- 6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED, AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
- 7. THIS FOUNDATION MAY ALSO BE USED FOR DUAL MAST ARM POLES.

- All workmanship, material and installation shall comply with the M.A.G. Uniform Standard Details and 1. Specifications as amended by the City of Mesa, the City of Mesa Engineering Design Standards and the latest adopted edition of the National Electric Code.
- The City of Mesa requires at least one IMSA Level I Roadway Lighting or Traffic Signal Technician on site during all phases of any streetlight work. It will be the responsibility of the Contractor to provide verification of current certification. If a job site is inspected and a certified technician is not on site, the job will be shut
- Contractor shall submit a list containing names and qualified status of personnel that will be on the immediate 3. job site to the Inspector prior to starting any type of construction. Any change in this list will require immediate notification to the inspector.
- During the construction or warranty period, if the Contractor fails to or is unable to comply within two (2) working days of a request of the inspector or if a streetlight outage makes it necessary for City forces to do work that is normally the Contractor's responsibility, the City will be justified in billing the Contractor. A separate billing shall cover each incident requiring work by City forces. The amount of each billing shall be either \$350.00 or the actual accumulated charges for employees' time, materials, and equipment, whichever is greater. Employees' time will be billed at each individual's hourly rate plus the applicable City overhead rate.
- Inspections shall be requested by the electrical contractor in accordance with the following list:
 - * Before starting project (pre-job inspection).
 * Before filling pull box holes with aggregate.
 * Before backfilling trench and covering conduit.

 - * When the pole foundations are dug, anchor bolts, ground wire and ground plate are ready and in place, prior to pouring concrete.
 - Before pulling wire.
 Before installation of fixtures, and photocell.

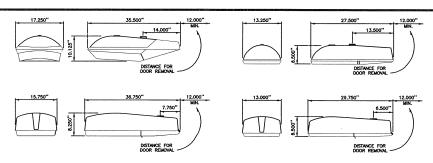
 - * Before making splices.

 * When project is completed. If necessary, a list of discrepancies will be submitted to the contractor for

Failure to have these items inspected and approved before proceeding will result in rejection of the work done, and removal of all such work will be required.

- All streetlights shall be connected to the permanent power supply by the agency supplying power. Streetlight systems will not be accepted until the system has been energized and fully operational for a minimum one-hour test period at rated voltage.
- Where a lighting control cabinet is utilized, streetlight circuits shall be 240 volt. Where a cabinet is not used, streetlight circuits shall be 120 volt. All services shall be 120/240 volt. All control circuits shall be 120 volt.
- Before disconnecting any existing streetlights, the new light system shall be working or temporary lighting installed. Existing streetlights to be removed and new streetlights shall not operate at the same time.
- Poles having multiple luminaires shall have two (2) conductors and one (1) bond wire per luminaire. The conductors shall be marked as pairs at the handhole
- 10. All underground circuit conductors shall be black, unless otherwise noted.

- Where streetlights or circuits are 120 volt, one conductor shall be un-fused and be either white or marked
- All circuit conductors in conduit shall be XHHW/XHHW-2 insulation, except photocell circuit shall be THHN/THWN.
- Three wires shall be run continuously without splices from the photocell to the lighting control cabinet. They shall be No. 12 THHN/THWN 90 degree C stranded copper conductors, 600 volt, NEC approved. The power to photo" shall be identified by black insulation. The "power from photo" shall be identified by red." insulation. The neutral shall be identified by white insulation.
- Minimum depth from top of curb or roadway to top of conduit shall be twenty-four (24) inches. Maximum depth shall be forty-eight (48) inches, unless otherwise approved.
- Underground wiring shall be installed in Schedule 40 rigid PVC conduit, UL approved for above ground and underground use with 90 degree C wire. Where twenty-four (24) inches cover is not possible, aglyanized rigid steel conduit (G.R.S.), shall be used. G.R.S. conduit shall be double wrapped with 20-mil tape to six (6) inches past the threaded metal coupling. Compression couplings are not allowed. Prior approval is needed for any design using G.R.S. conduit.
- All conduits shall be blown out using 90-PSI air pressure before pulling wire.
- 17. A two-piece expansion joint coupling shall be installed in PVC conduit runs at intervals not to exceed 100
- 18 All forty-five (45) and ninety (90) degree bends of conduit shall have a radius of not less than eighteen (18) inches. Factory bends only shall be used.
- 19 All joints between PVC conduit, couplings & fitting shall be prepared with purple primer and cemented together with gray PVC cement.
- The conduit locations shown on plan are diagrammatic representations only. Contractor is to install conduit to avoid conflicts. The contractor may at his option bore for the placement of conduit per Mesa Standard Details M-18. All conduits shall be placed within existing right-of-way unless otherwise approved.
- Streetlight conduits should be installed prior to residential driveway installations. If streetlight conduit is installed after residential driveway installation, contractor shall bore conduit under driveway. Meandering the conduit behind the entrance will not be permitted.
- Backfill requirements for all trenches shall conform to Article 300 of the N.E.C.. Section 601 of the Uniform Standard Specifications, and M-19.4 of the Mesa Standard Details for street trench backfill and pavement
- With the exception of detached sidewalks, pull boxes shall be installed (See Details M-74.1 and M-74.2) five (5) feet (center to center) between streetlight poles and pull boxes.
- Photocell receptacle shall be positioned on luminaire so that when installed the photocell will face north.



TYPE 1 LARGE COBRA HEAD LUMINAIRE

TYPE 2 SMALL COBRA HEAD LUMINAIRE

TYPE 1, AND TYPE 2 GENERAL DESCRIPTION

TO JUNISH A STREETLIGHT LUMBURE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND DESCRIBED FOR REACHING LOTHING. THE BILLIST FOR THE'GH, BALLL BE A BUILT IN MULTIPLE BULLIST FOR LIST WITH A 150 WATT 55 VALT. 250 WATT 100 VOIL, 250 WATT 100 VOIL, 250 WATT 100 VOIL, 310 WATT 1100 VOIL, 310 WATT 1100 VOIL, 310 WATT 100 VOIL HIGH PRESSURE STORM. THE BULLIST FOR THE GD. SHULL BE A BUILT IN MULTIPLE BULLIST FOR USE WITH A 100 WATT 55 VOIL, TO WATT 55 VOIL TO WATT

THE HOUSING FOR TIPE (), AND TIPE () SHALL BE PRECISION ALUMINUM DIE CAST WITH AN ACRTALE BASE ELECTROCAT RINESI (SEE DATA TABLE FOR COLOR).
THE HOUSING SWALL HAVE AN HITGERAL SUPHTITER FOR I 1/4" TO 2" PIPE AND SHALL CONTUN A PIPE STOP. CLAMPING AND LÉCELING OF THE LINT
SHALL BE ACCESSIBLE FROM WITHIN AND WITHOUT THE UNIT. EACH HOUSING SHALL HAVE THE LAMP WATRAGE NUMBERS ADHERED TO THE BOTTOM OF THE LIMINAM
SO THAT IT MAY BE SEEN PLANKLY FROM THE ROMAN FOR THE SHALL SH

	DATA TABLE									
LUMIN.	LAMP WATTAGE	LAMP TYPE	LAMP VOLTAGE	LINE	I.E.S. DIST. TYPE	P.C. RECPT.	HOUSING TYPE	COLOR		
L-097	70	H.P.S.	55	120x240V.	- 11	YES	2	GRAY		
L-098	70	H.P.S.	55	120x240V.	11	NO	2	GRAY		
L-099	70	H.P.S.	55	120x240V.	- 11	YES	3	BRONZE		
L-100	70	H.P.S.	55	120x240V.	11	NO	3	BRONZE		
L-101	100	H.P.S.	55	120x240V.	11	YES	2	GRAY		
L-102	100	H.P.S.	55	120x240V.	11	NO	2	GRAY		
L-103	100	H.P.S.	55	120x240V.	111	YES	3	BRONZE		
L-104	100	H.P.S.	55	120x240V.	TIF	NO	3	BRONZE		
L-105	150	H.P.S.	55	120x240V.	- 11	YES	2	GRAY		
L-106	150	H.P.S.	55	120x240V.	11	NO	2	GRAY		
L-109	150	H.P.S.	55	120x240V.	111	YES	1	GRAY		
L-110	150	H.P.S.	55	120x240V.	111	NO	1	GRAY		
L-111	150	H.P.S.	55	120x240V.	111	YES	3	BRONZE		
L-112	150	H.P.S.	55	120x240V.	111	NO	3	BRONZE		
L-113.1	150	H.P.S.	55	208V.	111	NO	3	CREOLE		
L-113.2	150	H.P.S.	55	277V.	111	NO	3	CREOLE		
L-114	200	H.P.S.	100	120x240V.	111	YES	1	GRAY		
L-115	200	H.P.S.	100	120x240V.	111	NO	1	GRAY		
L-116	200	H.P.S.	100	120x240V.	111	YES	3	BRONZE		
L-117	200	H.P.S.	100	120x240V.	111	NO	3	BRONZE		
L-118	250	H.P.S.	100	120x240V.	111	YES	1	GRAY		
L-119	250	H.P.S.	100	120x240V.	111	NO	1	GRAY		
L-120	250	H.P.S.	100	120x240V.	111	YES	3	BRONZE		
L-121	250	H.P.S.	100	120x240V.	111	NO .	3	BRONZE		
L-124	250	H.P.S.	100	120x240V.	111	NO	3	CREOLE		
L-125	250	H.P.S.	100	120x240V.	111	YES	1	GREEN		
L-126	250	H.P.S.	100	120x240V.	111	NO	1	GREEN		
L-127	250	H.P.S.	100	120x208x 240x277V.	111	YES	1	GRAY		
L-122	310	H.P.S.	100	120x240V.	111	YES	1 .	CREEN		
L-123	310	H.P.S.	100	120x240V.	111	NO	1	GREEN		
L-128	310	H.P.S.	100	120x240V.	111	YES	1	GRAY		
L-129	310	H.P.S.	100	120x240V.	111	NO	1	GRAY		
L-130	310	H.P.S.	100	120x240V.	111	YES	3	BRONZE		
L-131	310	H.P.S.	100	120x240V.	111	NO	3	BRONZE		
L-132	400	H.P.S.	100	120x240V.	111	YES	1	GRAY		
L-133	400	H.P.S.	100	120x240V.	111	NO	1	GRAY		
L-134	400	H.P.S.	100	120x240V.	111	YES	3	BRONZE		
L-135	400	H.P.S.	100	120x240V.	111	NO	3	BRONZE		

REQUIREMENTS

A. HOUSING

- THE HOUSING SHALL BE DESIGNED FOR 90 DEGREE LIGHT CUTOFF.
- TYPE ①, AND TYPE ② HOUSING SHALL BE OF TWO DOOR WITH ONE DOOR ACCESSING THE OPTICAL ASSEMBLY AND ONE DOOR ACCESSING THE BALLAST ASSEMBLY.
- 3. TYPE (3) HOUSING SHALL BE OF ONE DOOR WITH ACCESS TO BOTH
- THE HOUSING SHALL BE ABLE TO WITHSTAND 1000 HOUR SALT SPRAY TEST ASTM 117.
- NO REARRANGEMENT OF PARTS OR SEPARATE PARTS SHALL E REQUIRED WHEN MOUNTING THE UNIT.
- B. LAMP SOCKE
 - THE LAMP SOCKET SHALL BE MOGUL MULTIPLE PORCELAIN ENCLOSED. THE RATING OF THE SOCKET SHALL EXCEED THE LAM STARTING VOLTAGE.
 - THE SCREW SHELL OF THE SOCKET SHALL CONTAIN INTEGRAL LAW GRIPS TO ASSURE ELECTRICAL CONTACT UNDER CONDITIONS OF NORMAL VIBRATION.
 - THE SOCKET SHALL BE ADJUSTABLE IN BOTH A HORIZONTAL AND VERTICAL DIRECTION.
 - THE SOCKET SHALL CONFORM WITH TDJ-147 SPECIFICATION O EEI STANDARDS.
- C. DOOR GLASS
- THE DOOR GLASS SHALL BE HEAT AND IMPACT RESISTANT FREE FROM IMPERFECTIONS AND STRIATIONS.
- D. DOOR GLASS HOLDER-DOOR
 - THE DOOR GLASS HOLDER-DOOR SHALL BE SECURED AND HINGED THE UPPER HOUSING AT ONE END AND LATCHED TO THE UPPER HOUSING AT THE OPPOSITE END.
- E. REFLECTOR
 - 1. THE REFLECTOR SHALL BE OF DRAWN ALUMINUM AND HAVE A

HIGHLY POLISHED ANODIC SURFACE.

 THE REFLECTOR SHALL BE RIGIDLY MOUNTED WITHIN THE HOUSING TO ASSURE A FIRM SURFACE FOR PROPER SEALING WHEN THE UNIT IS CLOSED.

17.000"

24.000"

23.250" R

---- POLE WITH HORIZONTAL TEN

TYPE 3 SHOE BOX LUMINAIRE

- CASKETS BETWEEN THE REFLECTOR AND CLASSWARE SHALL EFFECTIVELY SEAL THE OPTICAL ASSEMBLY FROM CONTAMINATES AND ALLOW, TOP TOP BREATHING OF THE ASSEMBLY THROUGH THE DESCRIPTION OF THE ASSEMBLY THROUGH
- THE REFLECTOR DESIGN SHALL BE SUCH THAT BY PROPER POSITIONING OF THE LAMP SOCKET WILL PRODUCE AN IES TYPE OR TYPE IN IGNITING INSTRIBITION PATTERN

TERMINAL BOARD

TYPE (3) GENERAL DESCRIPTION

- THE TERMINAL BOARD SHALL BE MOLDED OF FIBERGLASS REINFORCED POLYESTER WITH PROTECTIVE BARRIERS BETWEE EACH TERMINAL
- EACH TERMINAL.

 2. THE TERMINAL SCREWS SHALL BE OF THE CAPTIVE TYPE AND EXCREW SHALL BE EQUIPPED WITH WIRE GRIPS WHICH WILL AUTOMATICALLY BE RAISSTILL AND LOWERED AS THE TERMINAL SC
- 3. THE TERMINALS SHALL BE CAPABLE OF ACCEPTING UP TO #6 AM
- THE TERMINAL BOARD SHALL HAVE THREE TERMINALS, ONE OF THESE TERMINALS SHALL BE FOR THE SYSTEM GROUND AND SHALL BE CONNECTED TO THE LUMINAIRE HOUSING
- WHEN A PHOTO CELL RECEPTACLE IS REQUIRED THREE ADDITIONAL TERMINALS SHALL BE PROVIDED FOR EXCLUSIVE PHOTO CELL OPERATIONS.
- ALL UNITS ARE TO BE PREWIRED TO A SINGLE TERMINAL BOARD REQUIRING ONLY CUSTOMER CONNECTIONS TO CLEARLY IDENTIFIED TERMINALS.

HARDWARE

. ALL HARDWARE SHALL BE OF NON-CORROSIVE OR SUITABLY PROTECTED METAL TO PREVENT ELECTROLYTIC ACTION BY CONTACT WITH ALUMINUM. COMPONENTS SHALL BE SECURED

10 the luminaire frame with stainless steel hardwar of the aisi 300 series chrome—nickel grade.

- THE BALLAST SHALL BE OF THE BUILT IN DESIGN, MOUNTED
 WITHIN THE LUMINAIRE IN SUCH A MANNER THAT IT CAN B
 FASILY DISCONNECTED BY SIMPLE DISCONNECTING BY LIGS

 OF THE BALLAST SHALL BE OF THE BUILDS.

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 THE BALLAST SHALL BE OF THE BUILT
- ON THE TYPE (1), AND TYPE (2) LUMINAIRES THE BALLAST AND OTHER AUXILIARY EQUIPMENT SHALL BE MOUNTED ON A SEPARABL DIE CAST DOOR OF THE LUMINAIRE, TO FACILITATE REPLACEMENT WITHOUT THE USE OF TOOLS.
- ON A TYPE (\$) LUMINARE THE BALLAST AND OTHER AUXILIARY EQUIPMENT SHALL BE MOUNTED IN A REMOVABLE PANEL OR TRA WITHIN THE LUMINARE, TO FACILITATE REPLACEMENT WITHOUT THI USE OF TOOLS.
- THE HIGH PRESSURE SODIUM BALLAST SHALL BE OF THE THRE COLL ISOLATED LAG TYPE REGULATOR DESIGN MULTIPLE VOLTAGE RATED (SEE DATA TABLE) FOR LINE VOLTAGE.
- 5. THE BALLAST CORE LAMINATION SHALL BE OF HIGH QUALITY ELECTRICAL GRADE STEEL WELDED TOGETHER TO MINIMIZE NOT AND ASSURE TROUBLE FREE OPERATION OVER THE LIFE OF THE MANAGE.
- 6. THE BALLAST COILS SHALL BE PRECISION WOUND ON FORMED INSULATING BOBBINS AND TERMINALS SHALL BE OF THE PUSH OF T
- 7. THE COMPONENT TO PROVIDE THE HIGH STARTING VOLTAGE
 REQUIRED BY THE HIGH PRESSURE SODIUM LAMP SHALL BE
 MOUNTED ON A NON ENCAPSULATED PULCE-IN MOUNTE WHACH SH
 BE EASILY ACCESSIBLE WITHOUT DISTURBING OTHER COMPONENTS
 BE ENTRY ACCESSIBLE WITHOUT DISTURBING OTHER COMPONENTS
 OF THE PART ACCESSIBLE WITHOUT DISTURBED WITHOUT DISTURBRING OTHER COMPONENTS
 OF THE PART ACCESSIBLE WITHOUT DISTURBRING
- 8. THE BALLAST SMALL BE CAPABLE OF STATITION AND OPERATION A REPORT OF THE CAPABLE OF STATITION AND OPERATION A REGION OF THE CAPABLE OF THE WAS AND OPERATION. THE LIMIT'S SPECIFIED BY THE LAW MANUFACTURER. THE LIMIT'S SPECIFIED BY THE LAW MANUFACTURER. THE CAPABLE OF OPERATION WITH LAW IN AN OPEN OR SHORT CIRCUIT CONCILION, PER SCHOOL WITHOUT SCHOOL PROJUCT LISTS OF THE CAPABLE OF OPERATION WITH LAW IN AN OPEN OR SHORT CIRCUIT CONCILION, PER SCHOOL WITHOUT SCHOOL PORT OF SCHOOL PROJUCT SCHOOL PR

*COLORS

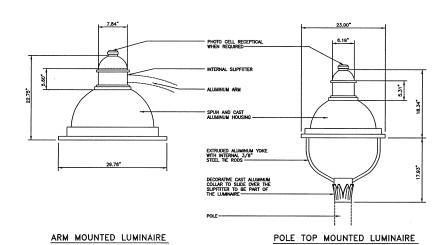
GRAY - SHALL BE AN ACRYLIC BASE ELECTROCOAT ASA 70 GRAY.

BRONZE - SHALL BE A POWDER COATED GE DARK BRONZE.

GREEN - SHALL BE (SERIES 73 ENDURASHIELD III BY TNEMEC) ECHO GREEN FOR MAIN STREET ONLY.

CREOLE - SHALL BE (SERIES 73 ENDURASHIELD III BY TNEMEC) CREOLE FOR MESA TOWN CENTER ONLY.

*OR APPROVED EQUAL



GENERAL DESCRIPTION

TO FURNISH A STREETLIGHT LUMINAIRE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND DESIGNED FOR ROADWAY LIGHTING WITH GENERAL SHAPE AS SHOWN.

DATA TABLE								
LUMIN.	LAMP WATTAGE	LAMP TYPE	LAMP VOLTAGE	LINE VOLTAGE	I.E.S. DIST. TYPE	P.C. RECPT.		
ARM MO	DUNTED LUM	INAIRE	*					
L-201	100	H.P.S.	55	120x240V.	111	YES		
L-202	100	H.P.S.	55	120x240V.	111	NO		
L-203	150	H.P.S.	55	120x240V.	111	YES		
L-204	150	H.P.S.	55	120x240V.	111	NO		
L-205	200	H.P.S.	100	120x240V.	111	YES		
L-206	200	H.P.S.	100	120x240V.	111	Ю		
L-207	250	H.P.S.	100	120x240V.	111	YES		
L-208	250	H.P.S.	100	120x240V.	111	NO		
L-209	310	H.P.S.	100	120x240V.	111	YES		
L-210	310	H.P.S.	100	120x240V.	111	NO		
L-211	400	H.P.S.	100	120x240V.	111	YES		
L-212	400	H.P.S.	100	120x240V.	111	NO		
POLE T	OP LUMINAIR	Œ						
L-213	100	H.P.S.	100	120x240V.	٧	YES		
L-214	100	H.P.S.	100	120x240V.	٧	NO		

REQUIREMENTS

A. HOUSIN

- THE HOUSING SHALL BE ONE PIECE EXTRUDED ALUMINUM WITH THE CANOPY BEING SPUN ALUMINUM.
- 2. THE HOUSING SHALL BE DESIGNED FOR 90 DEGREE LIGHT CUTOFF.
- THE HOUSING SHALL BE OF ONE DOOR WITH ACCESS TO BOTH THE OPTICAL AND ELECTRIC SYSTEMS. THE SYSTEMS SHALL BE HINGED AND REMOVABLE FOR EASE OF SERVICING.
- 4. THE HOUSING SHALL BE ABLE TO WITHSTAND 1000 HOUR SALT SPRAY TEST ASTM 117.
- NO REARRANGEMENT OF PARTS OR SEPARATE PARTS SHALL BE REQUIRED WHEN MOUNTING THE UNIT.
- ATTACHMENT AND LEVELING OF THE UNIT SHALL BE ACCOMPLISHED BY THE SUPFITTER.

B. ARM MOUNTED LUMINAIRE

- THE HOUSING SHALL HAVE AN INTERGRAL SLIPFITTER FOR 2" PIPE AND SHALL CONTAIN A PIPE STOP. CLAMPING AND LEVELING OF THE UNIT SHALL BE ACCESSIBLE FROM WITHIN THE UNIT.
- SINGLE ARM AND TWIN ARMS ARE TO MOUNT TO A 3" O.D. x 6" POST TOP TENON.

C. POLE TOP MOUNTED LUMINAIRE

- THE ALIMINUM SUPFITTER SHALL SUPPORT THE HOUSING AND CANOPY WITH AN EXTRUDED ALIMINUM YOKE WITH INTERNAL 3/8" STEEL TIE ROOS.
- THE SUPFITTER SHALL FIT A POLE WITH A TOP TENON 2.88" O.D. x 5.00"
- ATTACHMENT AND LEVELING OF THE UNIT SHALL BE ACCOMPLISHED BY FOUR 3/8" STAINLESS STEEL ALLEN SETSCREWS.

D. FINISH

- A PRIMER COAT OF TNEMEC SERIES 66 HI BUILD EPOXOLINE OR APPROVED EQUAL SHALL BE APPLIED TO A THICKNESS OF 3 DRY MILS.
- THE FINISH COATING SHALL BE TNEMEC SERIES 73 ENDURA SHIELD III OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 3 DRY MILLS.
- THE FINISH COLOR SHALL BE HUNTER GREEN, TNEMEC COLOR NUMBER PL20.
- THE FINAL COATING SHALL BE TNEMEC SERIES 76 ENDURA CLEAR OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 1.5 DRY MILLS.

F LAMP SOCKET

- THE LAMP SOCKET SHALL BE MOGUL MULTIPLE PORCELAIN ENCLOSED. THE RATING OF THE SOCKET SHALL EXCEED THE LAMP STARTING WOT AGE.
- THE SCREW SHELL OF THE SOCKET SHALL CONTAIN INTEGRAL LAMP GRIPS TO ASSURE ELECTRICAL CONTACT UNDER CONDITIONS OF NORMAL MBRATION.
- THE SOCKET SHALL CONFORM WITH TDJ-147 SPECIFICATION OF EEI STANDARDS.
- 4. THE SOCKET SHALL BE IN A HORIZONTAL POSITION.

F. DOOR GLASS

- THE DOOR GLASS SHALL BE HEAT AND IMPACT RESISTANT AND FREE FROM IMPERFECTIONS AND STRIATIONS.
- G. DOOR GLASS HOLDER-DOOR
 - THE DOOR GLASS HOLDER-DOOR SHALL BE SECURED TO THE HOUSING AT ONE END, AND HINGED TO THE HOUSING AT THE OPPOSITE END.

H. REFLECTOR

- THE REFLECTOR SHALL BE HYDROFORMED ALUMINUM AND HAVE A HIGHLY POLISHED ANODIC SURFACE.
- THE REFLECTOR SHALL BE RIGIDLY MOUNTED WITHIN THE HOUSING TO ASSURE A FIRM SURFACE FOR PROPER SEALING WHEN THE UNIT IS CLOSED.
- GASKETS BETWEEN THE REFLECTOR AND GLASSWARE SHALL EFFECTIVELY SEAL THE OPTICAL ASSEMBLY FROM CONTAMINATES AND ALLOW FOR PROPER BREATHING OF THE ASSEMBLY THROUGH AN ACTIVATED CHARCOLL FILTER.
- 4. THE REFLECTOR DESIGN SHALL BE SUCH THAT PROPER POSITIONING OF THE LAMP SOCKET WILL PRODUCE AN IES TYPE V DISTRIBUTION PATTERN FOR THE POLE TOP LUMINAIRE, AND TYPE III DISTRIBUTION PATTERN FOR THE ARM MOUNTED LUMINAIRE.

I. TERMINAL BOARD

- THE TERMINAL BOARD SHALL BE MOLDED OF FIBERGLASS REINFORCED POLYESTER WITH PROTECTIVE BARRIERS BETWEEN EACH TERMINAL
- THE TERMINAL SCREWS SHALL BE OF THE CAPTIVE TYPE AND EACH SCREW SHALL BE EQUIPPED WITH WINE GRIPS WHICH MILL AUTOMATICALLY BE RAISED AND LOWERED AS THE TERMINAL SCREW IS OPERATED.
- 3. THE TERMINALS SHALL BE CAPABLE OF ACCEPTING UP TO #8 AWG CONDUCTOR.
- THE TERMINAL BOARD SHALL HAVE THREE TERMINALS, ONE OF THESE TERMINALS SHALL BE FOR THE SYSTEMS GROUND AND SHALL BE CONNECTED TO THE FIXTURE HOUSING
- 5. WHEN A PHOTO CELL RECEPTACLE IS REQUIRED THREE ADDITIONAL TERMINALS SHALL BE PROVIDED FOR EXCLUSIVE PHOTO CELL OPERATIONS.
- 6. ALL UNITS ARE TO BE PREWIRED TO A SINGLE TERMINAL BOARD REQUIRING ONLY CUSTOMER CONNECTIONS TO CLEARLY IDENTIFIED

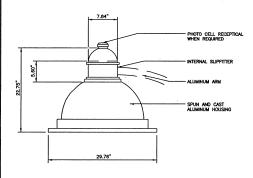
J. HAR

 ALL HARDWARE SHALL BE OF NON-CORROSINE OR SUITABLY PROTECTED METAL. WHEN NECESSARY TO PREVENT ELECTROLYTIC ACTION BY CONTACT WITH ALUMINION COMPONENTS STALL BE SCURED TO THE LUMININE FRAME WITH STANLESS STEEL HARDWARE OF THE ASS 300 SERIES OHROWE-HICKEL GRADE.

K. BALLAS

- 1. THE BALLAST SHALL BE OF THE BUILT IN DESIGN MOUNTED WITHIN THE LUMINAIRE IN SUCH A MANNER THAT IT CAN EASILY BE DISCONNECTED BY SIMPLE DISCONNECTING PLUGS.
- THE BALLAST AND OTHER AUXILIARY EQUIPMENT SHALL BE MOUNTED IN A REMOVABLE PANEL.
- 4. THE HIGH PRESSURE SODIUM BALLAST SHALL BE OF THE THREE COIL ISOLATED LAG TYPE REGULATOR DESIGN RATED 120x240
- THE BALLAST CORE LAMINATION SHALL BE OF HIGH QUALITY ELECTRICAL GRADE STEEL WELDED TOGETHER TO MINIMIZE NOISE AND ASSURE TROUBLE FREE OPERATION OVER THE LIFE OF THE LIMINAISE
- THE BALLAST COILS SHALL BE PRECISION WOUND ON FORMED INSULATING BOBBINS AND TERMINALS SHALL BE OF THE PUSH ON TYPE CONNECTIONS.
- THE COMPONENT TO PROVIDE THE HIGH STARTING VOLTAGE REQUIRED BY THE HIGH PRESSURE SODIUM LAMP SHALL BE PLUG—IN MODULE.
- 3. THE BALLAST SHALL BE CAPABLE OF STARTING AND OPERATING A
 100-400 WATT HIGH PRESSURE SODIUM LAMP PROM A NOMENL 240
 100-400 WATT HIGH PRESSURE SODIUM LAMP PROM A NOMENL 240
 LAMP MANUFACTHERS. THE BALLAST MICHIDIOS STARTING AD,
 WIST PROTECT ITSELF AGAINST NOMENL LAMP FAULER MODES.
 THE BALLAST SHALL BE CAPABLE OF OPERATION WITH LAMP IN AN
 OPEN OR SHORT CROUT CONDITION FOR SIX MONTHS WITHOUT
 SCHEPCHAT LOSS OF BALLAST LIFE.

S

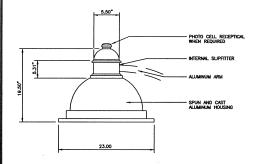


GENERAL DESCRIPTION

TO FURNISH A STREETLIGHT LUMINAIRE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND DESIGNED FOR ROADWAY LIGHTING WITH GENERAL SHAPE AS SHOWN.

		D	ATA 1	ABLE		
LUMIN.	LAMP WATTAGE	LAMP TYPE	LAMP VOLTAGE	LINE VOLTAGE	I.E.S. DIST. TYPE	P.C. RECPT.
ARM MC	OUNTED LUMI	NAIRE				
L-215	400	МН		120x240V.	111	YES
1-216	400	MU		120~240V	111	NO

L-215 & L-216 ARM MOUNTED LUMINAIRE



GENERAL DESCRIPTION

TO FURNISH A PEDESTRIAN LUMINAIRE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND DESIGNED FOR WALKWAY LIGHTING WITH GENERAL SHAPE AS SHOWN.

	DATA TABLE								
LUMIN.	LAMP WATTAGE	LAMP TYPE	LAMP VOLTAGE	LINE VOLTAGE	I.E.S. DIST. TYPE	P.C. RECPT.			
ARM MO	DUNTED LUM	INAIRE		•	•				
L-217	70	мн		120, 240 240, 277	٧	YES			
L-218	70	МН		120, 208 240, 277	٧	NO			

L-217 & L-218 ARM MOUNTED LUMINAIRE

REQUIREMENTS

A. HOUSING

- THE HOUSING SHALL BE ONE PIECE EXTRUDED ALUMINUM WITH THE CANOPY BEING SPUN ALUMINUM.
- 2. THE HOUSING SHALL BE DESIGNED FOR 90 DEGREE LIGHT CUTOFF.
- THE HOUSING SHALL BE OF ONE DOOR WITH ACCESS TO BOTH THE OPTICAL AND ELECTRIC SYSTEMS. THE SYSTEMS SHALL BE HINGED AND REMOVABLE FOR EASE OF SERVICING.
- THE HOUSING SHALL BE ABLE TO WITHSTAND 1000 HOUR SALT SPRAY TEST ASTM 117.
- NO REARRANGEMENT OF PARTS OR SEPARATE PARTS SHALL BE REQUIRED WHEN MOUNTING THE UNIT.
- ATTACHMENT AND LEVELING OF THE UNIT SHALL BE ACCOMPLISHED BY THE SUPFITTER.

B. ARM MOUNTED LUMINAIRE

 THE HOUSING SHALL HAVE AN INTERGRAL SUPFITTER FOR 2" PIPE AND SHALL CONTAIN A PIPE STOP. CLAMPING AND LEVELING OF THE UNIT SHALL BE ACCESSIBLE FROM WITHIN THE UNIT.

C. FINISH

- A PRIMER COAT OF TNEMEC SERIES 88 HI BUILD EPOXOUNE OR APPROVED EQUAL SHALL BE APPLIED TO A THICKNESS OF 3 DRY MILS.
- 2. THE FINISH COATING SHALL BE TNEMEC SERIES 73 ENDURA SHIELD III OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 3 DRY MILLS.
- THE FINISH COLOR SHALL BE HUNTER GREEN, TNEMEC COLOR NUMBER PL20.
- THE FINAL COATING SHALL BE TNEMEC SERIES 76 ENDURA CLEAR OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 1.5 DRY MILLS.

D. LAMP SOCKET

- THE 400 MH LAMP SOCKET SHALL BE MOGUL MULTIPLE PORCELAIN ENCLOSED. THE RATING OF THE SOCKET SHALL EXCEED THE LAMP STARTING VOLTAGE.
- THE 70 WATT MH LAMP SOCKET SHALL BE MEDIUM MULTIPLE PORCELAIN ENCLOSED. THE RATING OF THE SOCKET SHALL EXCEED THE LAMP STARTING VOLTAGE.
- . THE SCREW SHELL OF THE SOCKET SHALL CONTAIN INTEGRAL LAMP GRIPS TO ASSURE ELECTRICAL CONTACT UNDER CONDITIONS OF NORMAL MBRATION.
- THE SOCKET SHALL CONFORM WITH TDJ-147 SPECIFICATION OF EEI STANDARDS.
- 5. THE SOCKET SHALL BE IN A HORIZONTAL POSITION.

E. DOOR GLASS

 THE DOOR GLASS SHALL BE HEAT AND IMPACT RESISTANT AND FREE FROM IMPERFECTIONS AND STRIATIONS.

DOOR GLASS HOLDER-DOOR

 THE DOOR GLASS HOLDER-DOOR SHALL BE SECURED TO THE HOUSING AT ONE END, AND HINGED TO THE HOUSING AT THE OPPOSITE END.

G. REFLECTOR

- . THE REFLECTOR SHALL BE HYDROFORMED ALUMINUM AND HAVE A HIGHLY POLISHED ANODIC SURFACE.
- THE REFLECTOR SHALL BE RIGIDLY MOUNTED WITHIN THE HOUSING TO ASSURE A FIRM SURFACE FOR PROPER SEALING WHEN THE UNIT IS CLOSED.
- CASKETS BETWEEN THE REFLECTOR AND GLASSWARE SHALL EFFECTIVELY SEAL THE OPTICAL ASSEMBLY FROM CONTAMINATES AND ALLOW FOR PROPER BREATHING OF THE ASSEMBLY THROUGH AN ACTIVATED CHARCOLA, FILTER.
- THE REFLECTOR DESIGN SHALL BE SUCH THAT PROPER POSITIONING OF THE LAMP SOCKET WILL PRODUCE AN IES TYPE III DISTRIBUTION FOR THE ARM MOUNTED LUMINAIRE.

I. TERMINAL BOARD

- THE TERMINAL BOARD SHALL BE MOLDED OF FIBERGLASS REINFORCED POLYESTER WITH PROTECTIVE BARRIERS BETWEEN EACH TERMINAL.
- THE TERMINAL SCREWS SHALL BE OF THE CAPTIVE TYPE AND EACH SCREW SHALL BE EQUIPPED WITH WIRE GRIPS WHICH WILL AUTOMATICALLY BE RAISED AND LOWERED AS THE TERMINAL SCREW IS CORPORATED.
- THE TERMINALS SHALL BE CAPABLE OF ACCEPTING UP TO #6 AWG CONDUCTOR.
- 4. THE TERMINAL BOARD SHALL HAVE THREE TERMINALS, ONE OF THESE TERMINALS SHALL BE FOR THE SYSTEMS GROUND AND SHALL BE CONNECTED TO THE FIXTURE HOUSING
- WHEN A PHOTO CELL RECEPTACLE IS REQUIRED THREE ADDITIONAL TERMINALS SHALL BE PROVIDED FOR EXCLUSIVE PHOTO CELL OPERATIONS
- ALL UNITS ARE TO BE PREWIRED TO A SINGLE TERMINAL BOARD REQUIRING ONLY CUSTOMER CONNECTIONS TO CLEARLY IDENTIFIED TERMINALS.

J. HARDWARE

 ALL HARDWARE SHALL BE OF NON-CORROSIVE OR SUITABLY PROTECTED METAL. WHEN HECESSARY TO PREVENT ELECTROLYTIC ACTION BY CONTACT WITH AUMINIUM COMPONENTIS SHALL BE SECURED TO THE LIMINAIRE FRAME WITH STANLESS STEEL HARDWARE OF THE ASI SOO SERIES CHROME-MICKEL GRADE.

RALLAST

- THE BALLAST SHALL BE OF THE BUILT IN DESIGN MOUNTED WITHIN THE LUMINAIRE IN SUCH A MANNER THAT IT CAN EASILY BE DISCONNECTED BY SIMPLE DISCONNECTING PLUGS.
- THE BALLAST AND OTHER AUXILIARY EQUIPMENT SHALL BE MOUNTED IN A REMOVABLE PANEL.
- THE METAL HAUDE BALLAST SHALL BE OF THE TWO COIL, HIGH REACTANCE, HIGH POWER FACTOR TYPE DESIGN WITH AN IGNITION FOR A 70 WATT PULSE START METAL HAUDE LAWE (ANS CODE M-89). THE BALLAST SHALL BE EQUAL TO ADVANCE \$71A5292 RATED 120/2006/240/271 NIPUT VOLLAGE.
- THE METAL HAUDE BALLAST SHALL BE OF THE CONSTANT WATTAGE AUTOTRANSFORMER TYPE DESIGN FOR A 400 WATT METAL HAUDE LAMP (ANS CODE M-50 OR H-33). THE BALLAST SKALL BE EQUAL TO ADVANCE \$71A8081 RATED FOR 120/240/ INPUT VOLTAGE.
- 5. THE BALLAST CORE LAMINATION SHALL BE OF HIGH QUALITY ELECTRICAL GRADE STEEL WELDED TOGETHER TO MINIMIZE NOISE AND ASSURE TROUBLE FREE OPERATION OVER THE LIFE OF THE LIMINAUP.
- THE BALLAST COILS SHALL BE PRECISION WOUND ON FORMED INSULATING BOBBINS AND TERMINALS SHALL BE OF THE PUSH ON TYPE CONNECTIONS.
- THE BULLET SUIL BE CAPABLE OF STATING AND OPERATING A CON WATT METH, HABBE LUBB FROM A NOBMAN AS O POUT OUR FOWER SQUICE WHIRI THE LUBB'S SPECIFICD BY THE LAMP MANUFACIURER. THE BRALLST MUST FROTECT ITSELF AGAINST NORMAL LUMP FAULURE MODES. THE BALLEST SHALL BE CAPABLE OF OPERATION WITH LUMP IN AN OPEN OR SHORT CREQUIT CONDITION FOR SXL MONTHS WITHOUT SCHIEFCRET LUGS OF BALLEST LUFE.

L LAMP

- THE 400 WATT METAL HALIDE LAMP SHALL BE EQUAL TO VENTURE #18520, MH400/U, 400 WATT, CLEAR, MOGUL BASE, ED-37, 4000X, RATED FOR UNIVERSAL OPERATION, 36,000 INITIAL LUMENS, 28,800 MEAN LUMENS.
- THE PULSE START METAL HALDE LAMP SHALL BE EQUAL TO VENTURE \$12180 MH70/C/U, 70 WATT, COATED, MEDIUM BASE, ED-17, 3700K, RATED FOR HORIZONTAL OPERATION.

LAMP SPECIFICATION

GENERAL

THE LAMP SHALL BE A HIGH PRESSURE SODIUM TYPE FOR OPERATION ON AN HPS BALLAST MEETING ANSI SPECIFICATIONS. THE POLYCRYSTALLINE CREAMIC AND TUBE SHALL HAVE POLYCRYSTALLINE CREAMIC END PLUGS AT BOTH ENDS SUCH THAT END SEAL INTEGRITY CAN RECEIVE 100% INSPECTION UNDER MAGNIFICATION. THE ELECTRICAL CONNECTION AT EACH END OF THE ARC TUBE SHALL BE WAA A SINGLE WIRE THROUGH THE CERAMIC END PLUG.

LAMP SEASONING

EACH LAMP SUPPLIED SHALL BE PRETESTED AT ITS RATED WATTAGE BY THE MANUFACTURER BEFORE SHIPPING. AFTER TESTING THE OPERATING VOLTAGE OF THE LAMP SHALL BE AS SHOWN IN THE DATA TABLE. AFTER 100 HOURS OF SEASONING AT THE RATED WATTAGE THE AVERAGE INITIAL LUMENS OF THE LAMP SHALL BE AS SHOWN ON THE DATA TABLE, AND THE OPERATING VOLTAGE OF THE LAMP SHALL BE AS SHOWN ON THE DATA TABLE.

LAMP LIFE

AT 10 HOURS PER START THE LAMP LIFE SHALL BE SUCH THAT 85% OF INSTALLED LAMPS WILL CONTINUE TO OPERATE AFTER 16,000 HOURS OF USE AND 67% WILL CONTINUE TO OPERATE AFTER 24,000 HOURS OF USE.

WARRANTY

THE SUPPLIER AND MANUFACTURER OF THESE LAMPS SHALL PROVIDE SPECIFICATION SHEETS GIVING "PERFORMANCE DATA" AND "ELECTRICAL CHARACTERISTICS" AND SHALL WARRANT THAT THE LAMPS ARE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP AND TITLE AND COMPLY WITH THEIR WRITTEN SPECIFICATIONS AND THE PROVISIONS OF THIS SPECIFICATION.

THE SUPPLIER AND MANUFACTURER AGREE THAT IF ANY LAMP FAILS DURING THE FIRST 4,000 HOURS OF OPERATION IT WILL BE REPLACED AT NO CHARGE AND THAT ANY LAMPS THAT FAIL IN EXCESS OF THE CUMULATIVE PERCENTAGE FAILURE RATE SHOWN BELOW WILL BE REPLACED AT NO COST.

LAMP OPERATING HOURS	CUMULATIVE % FAILURES	REPLACEMENT PERCENTAGE
0 - 4,000	0%	100%
4,000 - 8,000	2%	100%

	DATA TABLE										
LAMP #	LAMP WATT	BALLAST ANSI SPEC.	BASE DESIGNATION	BULB SHAPE	BULB MATERIAL	BULB FINISH	MAX OVERALL LENGTH	LIGHT CENTER LENGTH	VOLTAGE AFTER TESTING & 100 HOURS SEASONING	AVG. INITIAL LUMENS AFTER 100 HOURS OF SEASONING	
LP-100	70	S-62	MEDIUM BRASS	E-17 OR B-17	HEAT RESIS. GLASS	COATED	5 7/16"	3 7/16"	44 - 62	5,985	
LP-101	100	S-54	MOGUL BRASS	E-23 1/2	HEAT RESIS. GLASS	CLEAR	7 3/4"	5"	45 - 62	9,500	
LP-102	150	S-55	MOGUL BRASS	E-23 1/2	HEAT RESIS. GLASS	CLEAR	7 3/4"	5"	45 - 62	16,000	
LP-103	200	S-66	MOGUL BRASS	E-18	HEAT RESIS. GLASS	CLEAR	9 3/4"	5 3/4"	90 115	22,000	
LP-104	250	S-50	MOGUL BRASS	E-18	HEAT RESIS. GLASS	CLEAR	9 3/4"	5 3/4"	90 115	27,500	
LP-105	310	S-67	MOGUL BRASS	E-18	HEAT RESIS. GLASS	CLEAR	9 3/4"	5 3/4"	90 115	37,000	
LP-106	400	S-51	MOGUL BRASS	E-18	HEAT RESIS. GLASS	CLEAR	9 3/4"	5 3/4"	90 115	50,000	
LP-107	750	S-111	MOGUL BRASS	BT-37	HEAT RESIS. GLASS	CLEAR	11 1/2"	7"	112 - 140	110,000	
LP-108	1000	S-52	MOGUL BRASS	E-25	HEAT RESIS. GLASS	CLEAR	15 1/16"	8 3/4"	210 275	140,000	
LP-109	150	S-55	MEDIUM BRASS	E-17 OR B-17	HEAT RESIS. GLASS	CLEAR	5 11/16"	3 11/16"	45 62	16,000	

TIME DELAY PHOTO ELECTRIC CONTROL REQUIREMENTS

PC-101 PC-101 IS 105 - 130 VOLTS, 50/60HZ AC (120V NOMINAL)

 $\underline{PC-102}$ PC-102 IS 208 - 277 VOLTS, 50/60HZ AC

PHYSICAL

SIZE

SEE DRAWING

WEIGHT

APPROXIMATELY 7 OZ. GROSS

CHASSIS

MOLDED PHENOLIC WITH 3 POLE TWISTLOCK PLUG WITH CROSS LINKED POLYETHYLENE

HOUSING

U.V. STABILIZED POLYPROPYLENE WITH ACRYLIC

WINDOW WITH ULTRAVIOLET INHIBITOR.

COLOR CODE

PC-101 IS GRAY

PC-102 IS MAROON

ELECTRICAL

SUPPLY VOLTAGE

PC-101 IS 105 - 130 VOLTS, 50/60HZ AC

(120V NOMINAL) PC-102 IS 208 - 277 VOLTS, 50/60HZ AC

RATINGS LOAD

1000 WATTS/1800VA MAX. SPST, N.C.

(1000 WATTS INCADESENT)
(1800VA MERCURY VAPOR, HIGH PRESSURE

INRUSH CURRENT

130 AMPERES AT 120 VOLTS 65 AMPERES AT 240 VOLTS

OPERATING LEVELS

TURN ON AVERAGE Ifc. ±.2fc

TURN ON MAXIMUM 1.8fc RATIO AVERAGE 3

CONTROL POWER

3.2 WATTS, MAXIMUM (2.75 AVERAGE) AT 240

DIELECTRICAL STRENGTH

5 KV MINIMUM BETWEEN ANY CURRENT CARRYING

PART AND METAL MOUNTING SURFACE.

LIGHTNING ARRESTOR

DELUXE - CONTROLLED TYPE EXPULSION ENCLOSED 2.0 KV SPARK OVER MINIMUM TYPE

10,000 AMPS FOLLOW THROUGH

PHOTOCELL

HERMETICALLY SEALED CDS CELL, MINIMUM SURFACE AREA .75 SQUARE INCHES

TIME DELAY

OFF CYCLE ONLY, 3 TO 30 SECONDS

ENVIRONMENTAL

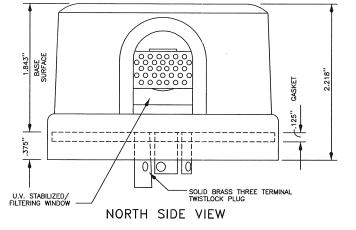
AMBIENT TEMPERATURE RANGE

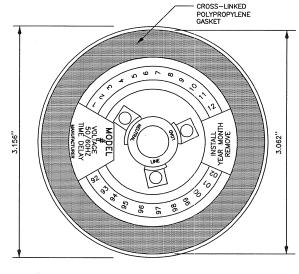
-65 DEGREES FAHRENHEIT TO +158 DEGREES

FAHRENHEIT

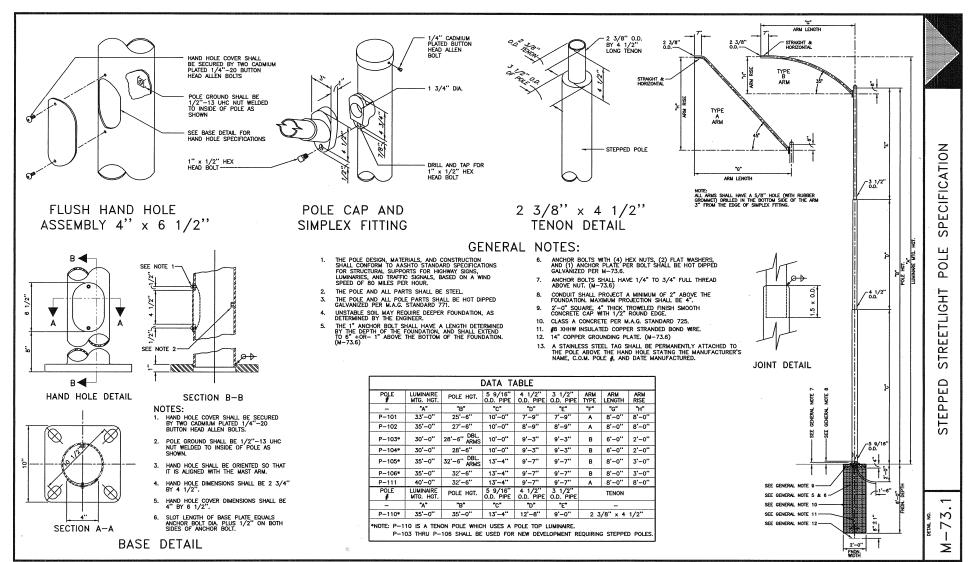
MOISTURE RESISTANCE

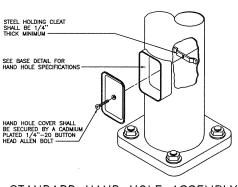
100% RELATIVE HUMIDITY

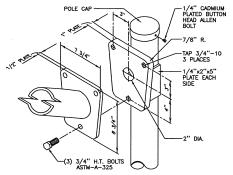


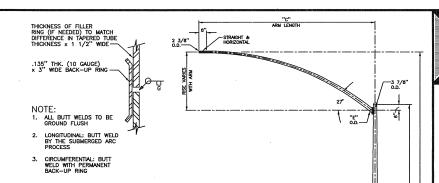


BOTTOM VIEW









STANDARD HAND HOLE ASSEMBLY

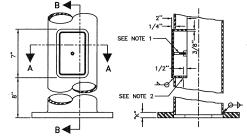
POLE CAP AND MAST ARM ATTACHMENT

SPLICE DETAIL

GENERAL NOTES:

- THE POLE DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS, BASED ON A WIND SPEED OF 80 MILES PER HOUR.
- 2. THE POLE AND ALL PARTS SHALL BE STEEL.
- THE POLE AND ALL POLE PARTS SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771.
- UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATION, AS DETERMINED BY THE ENGINEER.
- THE 1 1/4" ANCHOR BOLT SHALL HAVE A LENGTH DETERMINED BY THE DEPTH OF THE FOUNDATION, AND SHALL EXTEND TO 6" +OR- 1" FROM THE BOTTOM OF THE FOUNDATION. (P-207, P-208, P-209 AND P-210 REQUIRE 44" ANCHOR BOLTS). M-73.6
- ANCHOR BOLTS WITH (4) HEX NUTS. (2) FLAT WASHERS, AND (1) ANCHOR PLATE PER BOLT SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771. (M-73.6)

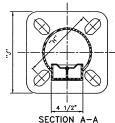
- ANCHOR BOLTS SHALL HAVE 1/4" TO 3/4" FULL THREAD ABOVE NUT. (M-73.6)
- CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE THE FOUNDATION MAXIMUM PROJECTION SHALL BE 4".
- $3^*\!-\!0"$ square, 4" thick troweled finish smooth concrete CAP with 1/2" round edge.
- 10. CLASS A CONCRETE PER M.A.G. STANDARD 725.
- 11. #8 XHHW INSULATED COPPER STRANDED BOND WIRE.
- 12. 14" COPPER GROUNDING PLATE. (M-73.6)
- 13. P-207, P-208, P-209 AND P-210 FOUNDATIONS SHALL REQUIRE 8 EA. (#7 x 7' 4") VERTICAL BARS. WITH 3/8" ROUND COLD DRAWN STEEL WIRE SPIRAL CAGE WITH 4 3" PITCH.
- 14. THE PIPE ON EACH SIDE OF A CIRCUMFERENTIAL WELD SHALL HAVE THE SAME OUTSIDE DIAMETER AT THE WELD.
- A STAINLESS STEEL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTURER'S NAME, C.O.M. POLE #, AND DATE MANUFACTURED.



HAND HOLE DETAIL

STEEL HOLDING CLEAT SHALL BE 1/4" THICK MINIMUM

SEE BASE DETAIL FOR HAND HOLE SPECIFICATIONS



SECTION B-B

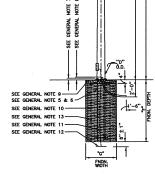
NOTES: HAND HOLE COVER SHALL BE SECURED BY A CADMIUM PLATED 1/4"-20 BUTTON HEAD ALLEN BOLT AND HOLDING CLEAT.

- POLE GROUND SHALL BE 1/2" DIA. N.C. TAPPED HOLE LOCATED AS SHOWN.
- HAND HOLE SHALL BE ORIENTED SO THAT IT IS ALIGNED WITH THE MAST ARM.
- HAND HOLE DIMENSIONS SHALL BE 4" BY 6 1/2".
- HAND HOLE COVER DIMENSIONS SHALL BE 4 1/2" BY 7".
- SLOT LENGTH OF BASE PLATE EQUALS ANCHOR BOLT DIA. PLUS 1/2" ON BOTH SIDES OF ANCHOR BOLT.

BASE DETAIL

	DATA TABLE										
POLE #	LUMINAIRE MTG. HT.	SHAFT LENGTH	ARM LENGTH	POLE O.D. AT BASE	ARM O.D. AT FLANGE	FNDN. DEPTH	FNDN. WIDTH	BOLT CIRCLE	SQUARE	PLATE	
-	"A"	"B"	"c"	"D" ·	"E"	"F"	"G"	"H"	"J"	"K"	
P-201	35'-0"	30'-0"	18'-0"	8"	5 3/16"	5'-0"	3'-0"	11 1/2"	11 1/2"	1"	
P-202	35'-0"	30'-0"	20'-0"	8"	5 1/4"	5'-0"	3'-0''	11 1/2"	11 1/2"	1"	
P-203	39'-0"	35'-0"	15'-0" DBL.	8 11/16"	4 3/4"	6'-0"	3'-0"	12 1/2"	13 1/2"	1 1/2"	
P-204*	40'-0"	35'-0"	18'-0" DBL. ARMS	8 11/16"	5 3/16"	6'-0"	3'-0"	12 1/2"	13 1/2"	1 1/2"	
P-205*	40'-0"	35'-0"	18'-0"	8 11/16"	5 3/16"	6'-0"	3'-0''	12 1/2"	13 1/2"	1 1/2"	
P-206*	40'-0"	35'-0"	20'-0"	8 11/16"	5 1/4"	6'-0"	3'-0"	12 1/2"	13 1/2"	1 1/2"	
P-209*	45'-0"	40'-0"	18'-0"	9 3/8"	5 1/4"	8'-0"	3'-0''	14 1/2"	16"	1 1/2"	
P-210*	45'-0"	40'-0"	18'-0" DBL. ARMS	9 3/8"	5 1/4"	8'-0"	3'-0"	14 1/2"	16"	1 1/2"	
P-207*	45'0"	40'-0"	20'-0"	9 3/8"	5 1/4"	8'-0"	3'-0"	14 1/2"	16"	1 1/2"	
P-208*	55'-0"	50'-0"	20'-0"	10 3/4"	5 1/4"	8'-0"	3'-0"	14 1/2"	16"	1 1/2"	

*NOTE: P-207 THRU P-210 REQUIRES STEEL CAGE PER GENERAL NOTE 13.
P-204 THRU P-210 SHALL BE USED FOR NEW PROLECTS, AND DEVELOPMENTS REQUIRING TAPERED POLES.
P-205, AND P-209 SHALL BE USED FOR AUGMENT OF FIXTURES, WHEN POLE LOCATION, OR SET BACK.
VARIES, AS DETERMINED BY THE ENGINEER.



SPECIFICATION

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STREETLIGHT

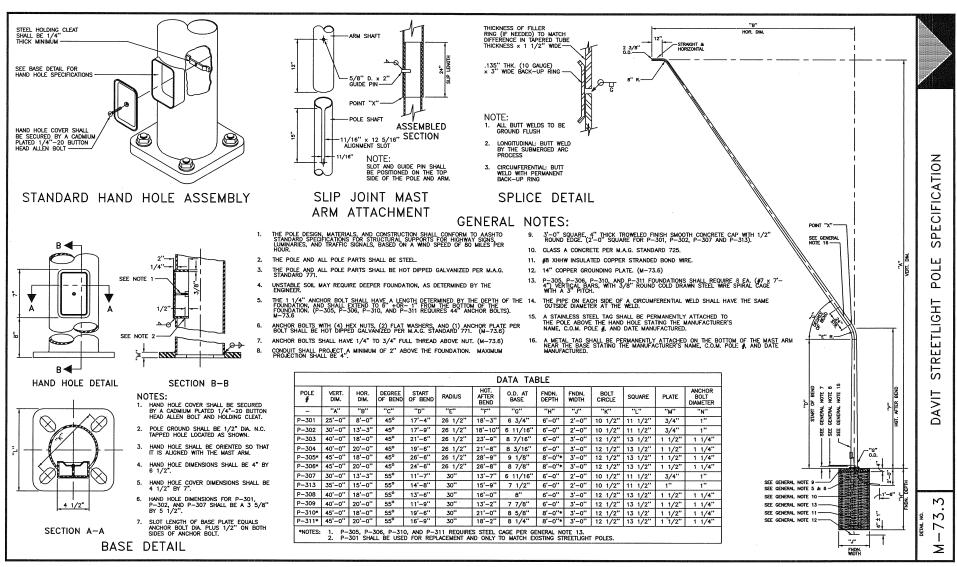
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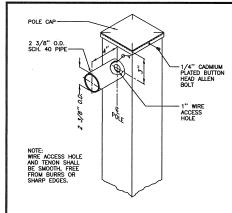
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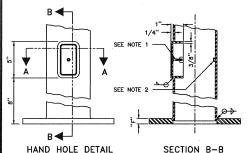
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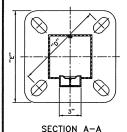




TENON FIXTURE ATTACHMENT AND POLE CAP



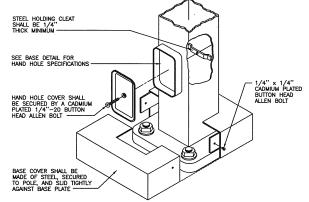
HAND HOLE DETAIL



NOTES:

- 1. HAND HOLE COVER SHALL BE SECURED BY A CADMIUM PLATED 1/4"-20 BUTTON HEAD ALLEN BOLT AND HOLDING CLEAT.
- 2. THE POLE'S GROUND SHALL BE 1/2"-13 UHC NUT WELDED TO INSIDE OF THE POLE AS SHOWN.
- 3. HAND HOLE SHALL BE ORIENTED SO THAT IT IS ALIGNED WITH THE MAST ARM.
- 4. HAND HOLE DIMENSIONS SHALL BE 3" BY
- 5. HAND HOLE COVER DIMENSIONS SHALL BE 3" BY 5".
- SLOT LENGTH OF BASE PLATE EQUALS ANCHOR BOLT DIA. PLUS 1/2" ON BOTH SIDES OF ANCHOR BOLT.

BASE DETAIL

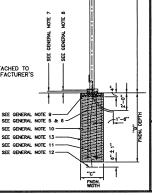


STANDARD HAND HOLE ASSEMBLY AND BASE COVER

			DAT	A TABL	E		
POLE #	POLE HGT.	FNDN. DEPTH	FNDN. WIDTH	BOLT CIRCLE	SQUARE	PLATE	ANCHOR BOLT DIAMETER
	"A"	"B"	"c"	"D"	"E"	"F"	"G"
4" SQ.		***************************************	•	•			•
P-401	16'-0" DBL	5'-0"	2'-0"	8"	8"	3/4"	3/4"
P-402	16'-0"	5'-0"	2'-0"	8"	8"	3/4"	3/4"
P-403	20'-0" DBL ARMS	5'-0"	2'-0"	8"	8"	3/4"	3/4"
P-404	20'-0"	5'-0"	2'-0"	8"	8"	3/4"	3/4"
P-405	24'-0" DBL ARMS	5'-0"	2'-0"	8'	8"	3/4"	3/4"
P-406	24'-0"	5'-0"	2'-0"	8"	8"	3/4"	3/4"
P-407	30'-0" DBL ARMS	6'-0"	2'-0"	8"	8"	1"	1"
P-408	30'-0"	6'-0"	2'-0"	8"	8"	1"	1"
5" SQ.						-	
P-409	20'-0" DBL ARMS	5'-0"	2'-0"	10 1/2"	10'	3/4"	3/4"
P-410	20'-0"	5'-0"	2'-0"	10 1/2"	10"	3/4"	3/4"
P-411	25'-0" DEL	6'-0"	2'-0"	10 1/2"	10"	3/4"	3/4"
P-412	25'-0"	6'-0"	2'-0"	10 1/2"	10"	3/4"	3/4"
	P-401 THRU P- MATCH EXISTING				OR REPLACEM	IENT AND	ONLY TO
P-413	30'-0" DBL	6'-0"	2'-0"	10 1/2"	10"	1"	1"
P-414	30'-0"	6'-0"	2'-0"	10 1/2"	10"	1"	1"
P-415	35'-0" DBL	6'-0"	2'-0"	10 1/2"	10"	1"	1"
P-416	35'-0"	6'-0"	2'-0"	10 1/2"	10"	1"	1"
6" SQ.							
P-417	40'-0" DBL	6'-0"	3'-0"	12 1/2"	12"	1 1/2"	1 1/4"
P-418	40'-0"	6'-0"	3'-0"	12 1/2"	12"	1 1/2"	1 1/4"
P-419	45'-0" DBL ARMS	8'-0"	3'-0"	12 1/2"	12"	1 1/2"	1 1/4"
P-420	45'-0"	8'-0"	3'-0'	12 1/2"	12"	1 1/2"	1 1/4"
NOTES:	1. P-419, P-	-420 SHAI RU P-420	L REQUIR	E A STEEL	CAGE PER (R NEW DEVE	SENERAL N	OTE 13.

GENERAL NOTES:

- THE POLE DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, BASED ON A WIND SPEED OF 80 MILES PER HOUR.
- 2. THE POLE AND ALL PARTS SHALL BE STEEL.
- THE POLE AND ALL POLE PARTS SHALL BE SAND BLASTED TO SSPC SPECIFICATION SP-6-6-3. A PRIMER COAT OF THEMEC SERIES 66 HIS BUILD EPOXOLINE OR APPROVED EQUAL SHALL BE APPLIED TO A MINIMUM THICKNESS OF 3 DRY MILS. THE COLOR COATING SHALL BE THEMEC SERIES 73 BOUNTA SHELD HIS OF APPLIED TO A MINIMUM THICKNESS OF 3 DRY MILS. APPLIED TO A MINIMUM THICKNESS OF THE SERIES 76 ENDURA CLEAR OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 1.5 DRY MILLS. THE SHINSH COR OR SHALL MARCH ENTLINE SPECIFIED. FINISH COLOR SHALL MATCH FIXTURE SPECIFIED.
- UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATION, AS DETERMINED BY THE ENGINEER.
- THE ANCHOR BOLTS SHALL HAVE A LENGTH DETERMINED BY THE DEPTH OF THE FOUNDATION, AND SHALL EXTEND TO 6 + OPE 1" ABOVE THE BOTTOM OF THE FOUNDATION, SEE DATA TABLE "F FOR DIAMETER OF ANCHOR BOLT, (P-419, AND P-420 REQUIRES 44" ANCHOR BOLTS). M-73.6
- ANCHOR BOLTS WITH (4) HEX NUTS, (2) FLAT WASHERS, AND (1) ANCHOR PLATE PER BOLT SHALL BE HOT DIPPED GALVANIZED PER M-73.6.
- ANCHOR BOLTS SHALL HAVE 1/4" TO 3/4" FULL THREAD ABOVE NUT. (M-73.6)
- CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE THE FOUNDATION. MAXIMUM PROJECTION SHALL BE 4".
- 9. 2'-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE. (3'-0" SQUARE FOR P-417, P-418, P-419, AND P-420).
- 10. CLASS A CONCRETE PER M.A.G. STANDARD 725.
- 11. #8 XHHW INSULATED COPPER STRANDED GROUNDING WIRE.
- 12. 14" COPPER GROUNDING PLATE. (M-73.6)
- 13. P-419 AND P-420 FOUNDATIONS SHALL REQUIRE 8 EA. (F7 × 7'-4") VERTICAL BARS, WITH 3/8" ROUND COLD DRAWN STEEL WIRE SPIRAL CAGE WITH A 3" PITCH.
- A STAINLESS STEEL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTURER'S NAME, C.O.M. POLE #, AND DATE MANUFACTURED.



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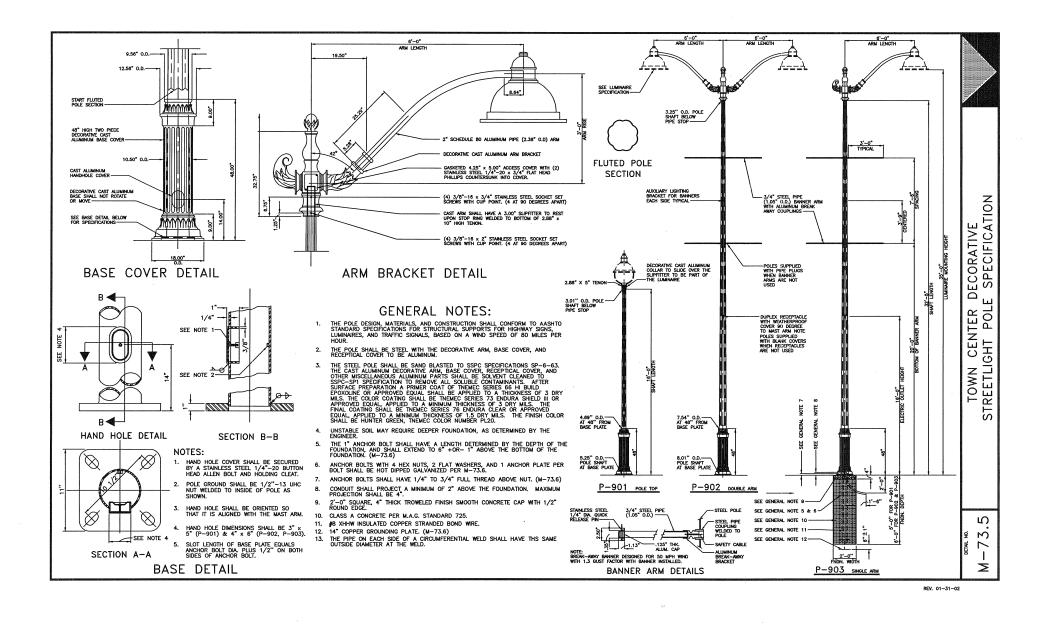
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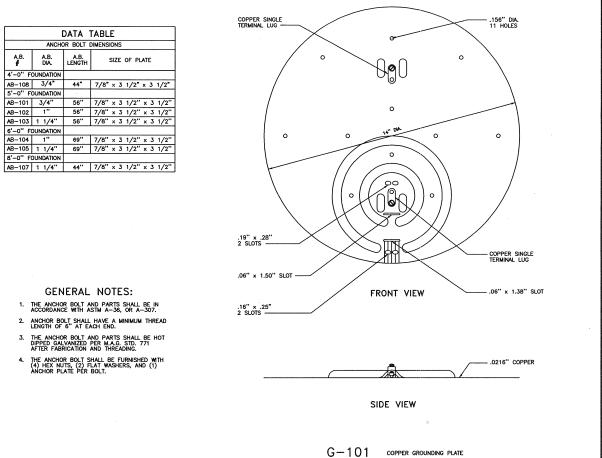
ш POLI

STREETLIGHT

SQUARE

4





1/4" MIN. TO -

POLE BASE PLATE -

ANCHOR BOLT FOR DIAMETER SEE DATA TABLE-

7/8" x 3 1/2" x 3 1/2" ANCHOR PLATE HEX NUT AND FLAT WASHER

SEE GENERAL NOTE 2 FOR LENGTH OF THREAD

HEX NUT

- HEX NUT

HEX NUT

ANCHOR BOLT SHALL BE CENTERED IN PLATE

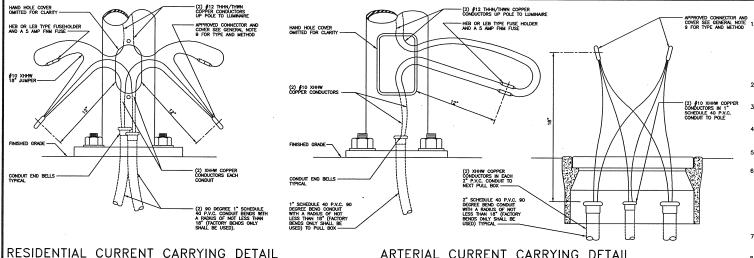
7/8" x 3 1/2" x 3 1/2" ANCHOR PLATE

AB-101 - AB-108

ANCHOR BOLTS

SIDE VIEW

3 1/2" BOTTOM VIEW



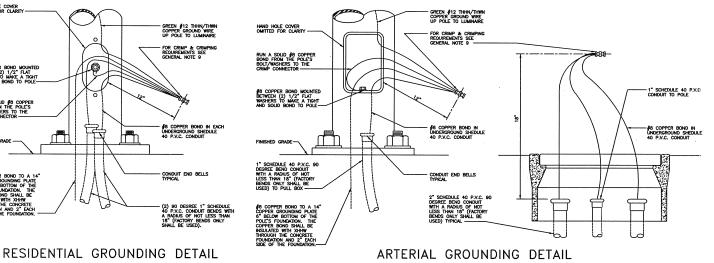
HAND HOLE COVER OMITTED FOR CLARITY

#8 COPPER BOND MOUNTED BETWEEN (2) 1/2" FLAT WASHERS TO MAKE A TIGHT AND SOLID BOND TO POLE—

FINISHED GRADE -

\$\\ 8 \text{ COPPER BOND TO A 14"} \\
COPPER GROUNDING PLATE 6" BELOW BOTTOM OF THE POLE'S FOUNDATION. THE COPPER BOND SHALL BE INSULATED WITH X14HW THROUGH THE CONCRETE FOUNDATION AND 2" EACH SIDE OF THE FOUNDATION. —

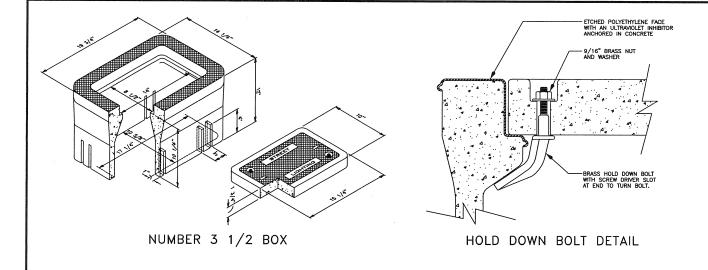
ARTERIAL CURRENT CARRYING DETAIL



GENERAL NOTES:

ALL POLES SHALL BE WIRED USING TWO (2)
#72 BLACK THIN/THIN 90 DECREE C STRANDED
FOR LUMBANEY, AND ONE (1) GREEN #72
THIN/THIN 90 DECREE C STRANDED COPPER
GOUND WIRE, 600 VOLT NEC APPROVED
FOR LUMBANE, 501 VOLT NEC APPROVED
(PR
LUMBANIRE), WIRES SHALL RUN FROM THE
LUMBANIRE TO A MISHIUM OF TWELVE (12)
NICHES BELOW POLE HAND HOLE FOR

- ALL STREETLIGHT CONDUCTORS AND BOND WIRES SHALL BE COPPER. ALUMINUM SHALL NOT BE ALLOWED.
- TWO (2) CONDUCTORS (PER LUMINAIRE) SHALL BE INSTALLED IN P.V.C. CONDUIT FROM HAND HOLE TO PULL BOX.
- ALL CURRENT CARRYING CONDUCTORS IN CONDUIT SHALL BE INSULATED WITH XHHW INSULATION.
- ALL P.V.C. CONDUIT RUNS SHALL CONTAIN A MINIMUM #8, 7 STRAND BARE COPPER BOND WIRE
- ALL COMDUCTORS AND BOND WIRES SHALL BE STRANDED, EXCEPT FOR THE SOLID BOND WHEE THAT RUNS FROM THE POLICE'S BOLT/WASHER TO THE CRIMP CONNECTOR. THE BOND MIRE IN THE CONCRETE FOUNDATION SHALL BE A #8 XHHW COPPER STRANDED WIRE AND SHALL BE INSULATED THROUGH THE CONCRETE FOUNDATION FOR TWO INCHES ON EACH SIDE FOUNDATION FOR TWO INCHES ON EACH SIDE TO THE CONNECTION POLITY ON THE CRIMP CROWNING OF THE CONNECTION FOR TWO INCHES ON EACH SIDE TO THE CONNECTION POLITY ON THE GROUNDING FOR TWO INCHES ON EACH SIDE OF THE CONNECTION POLITY ON THE GROUNDING PLATE AND TO THE CRIMP CONNECTION.
- ALL POLE FOUNDATIONS SHALL HAVE A FOURTEEN (14) INCH COPPER GROUNDING PLATE. (M-73.6)
- EACH LUMINAIRE SHALL BE FUSED BEHIND THE POLE'S HAND HOLE COVER USING A HEB, OR LEB TYPE FUSE HOLDER WITH RUBBER INSULLATING BOOTS AND A 5 AMP FNM FUSE OR APPROVED EQUAL.
- ALL SPUCES SHALL BE DONE USING A BLACKBURN WR-9, WR-189, OR A WR-279 H TYPE CRIMP CONNECTOR, AND A KEARNEY "AQUA-SEAL" KIT CATALGS NO. 118047, 118047-1, OR APPROVED EQUAL.
 - CRIMPING
 CRIMPING OF THE WR-9 SHALL BE DONE
 USING A BURNDY TOOL NO. MD6-8 WITH
 BG DIE.
 - CRIMPING OF THE WR-189 SHALL BE DONE USING A BURNDY TOOL NO. MD6-8 WITH O DIE.
 - CRIMPING OF THE WR-279 SHALL BE DONE USING A BURNDY TOOL NO. MD6-8 WITH D3 DIE.
 - APPROVED EQUALS MAY BE USED.
 - WATER PROOF KITS
 "AQUA-SEAL" KIT CATALOG NO. 118047
 SHALL BE USED WITH THE BLACKBURN
 WR-9, AND WR-189.
 - "AQUA-SEAL" KIT CATALOG NO. 118047-1 SHALL BE USED WITH THE BLACKBURN WR-279.
 - APPROVED EQUALS MAY BE USED.
- 10. WIRE PULLING COMPOUND SHALL BE USED WHEN PULLING WIRE IF NEEDED.
- 11. EACH CONDUIT RUN INTO A PULL BOX OR LICHTING CONTROL CABINET SHALL HAVE AN END BELL, AND A MINIMUM OF THIRTY-SIX (36) INCHES OF SLACK IN THE WIRE FROM END BELL TO END BELL IN THE SAME PULL BOX.
- 12. CONDUIT END BELLS SHALL BE INSTALLED BEFORE PULLING WIRE.

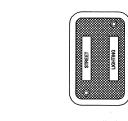


NUMBER 5 BOX

GENERAL NOTES:

- THE BOX SHALL BE MADE OF A HIGH DENSITY REINFORCED CONCRETE MATERIAL WITH END AND SIDE KNOCKOUTS, AND NON-SETTLING SHOULDERS TO MAINTAIN GRADE. THE BOX SHALL BE MANUFACTURED WITH APPROXIMATE DIMENSIONS AS SHOWN.
- 2. STEEL REINFORCEMENT SHALL BE A REGULARLY USED IN STANDARD PRODUCTS OF THE RESPECTIVE MANUFACTURER.
- 3. COVER LETTERING SHALL BE 1" LETTERS CAST IN STANDARD MARKINGS: STREET LIGHTING
- 4. THE BOX SHALL HAVE AN ETCHED POLYETHYLENE FACE WITH AN ULTRAVIOLET INHIBITOR ANCHORED IN CONCRETE.

PULL BOX #	DATA TABLE
PB-101	#3 1/2 BOX WITH CONCRETE LID "A"
PB-102	#3 1/2 BOX WITH CAST IRON LID "B"
PB-103	#3 1/2 BOX WITH STEEL LID "C"
PB-104	#5 BOX WITH CONCRETE LID "A"
PB-105	#5 BOX WITH CAST IRON LID "B"
PB-106	#5 BOX WITH STEEL LID "C"







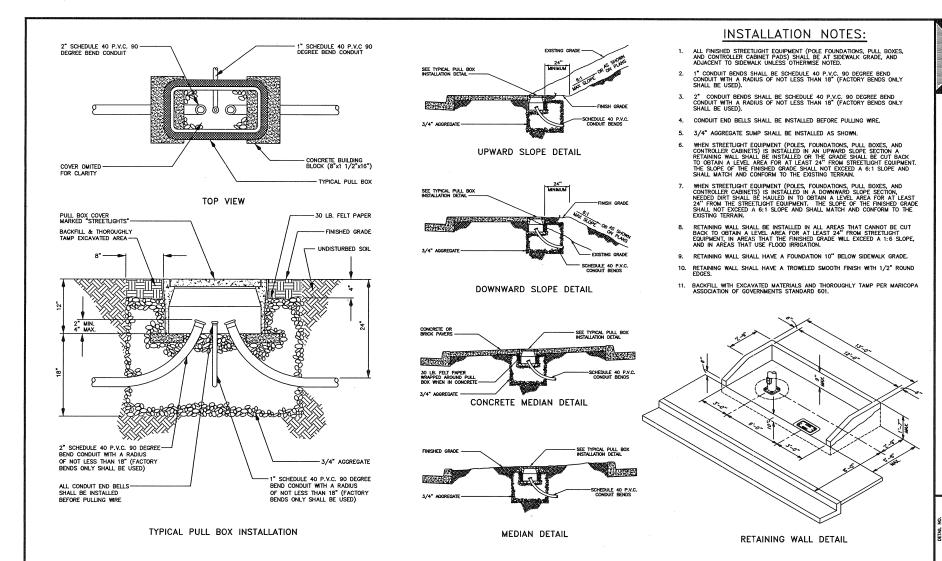
LID "B"

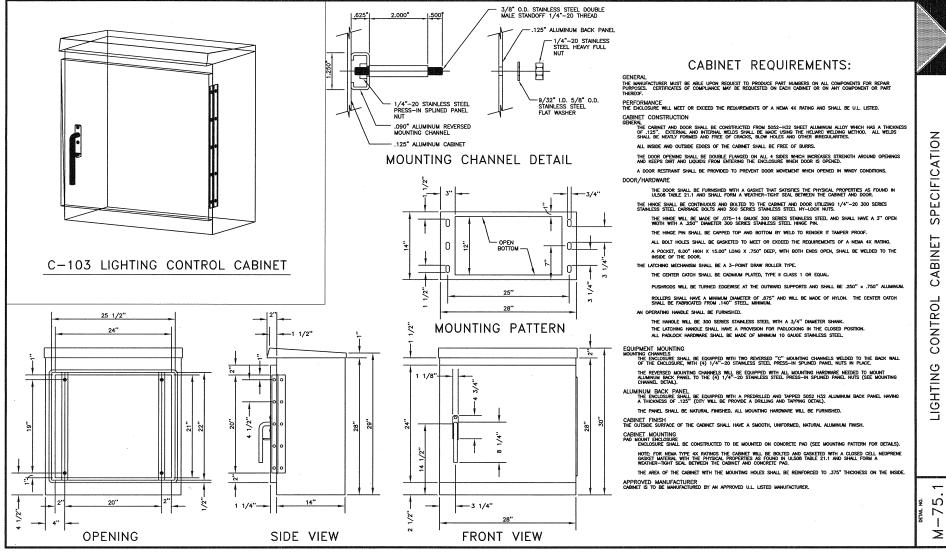


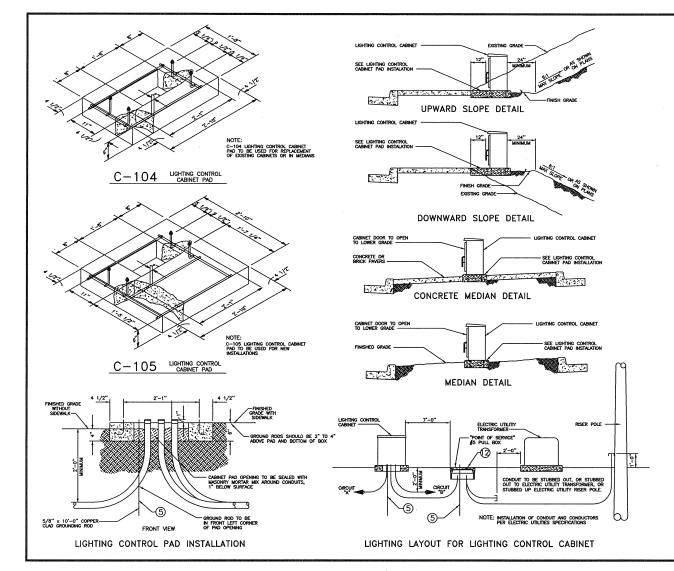
LID "C"

LID "A" REINFORCED CONCRETE WITH HOLD DOWN BOLTS LID "B" CAST IRON WITH HOLD DOWN BOLTS LID "C" STEEL CHECKER WITH HOLD DOWN BOLTS:

OPTIONAL PULL BOX LIDS







CONCRETE PAD REQUIREMENTS:

THE PURPOSE OF THIS SPECIFICATION IS TO PROVIDE DETAILS OF A PRECAST CONCRETE PAD TO MOUNT AND SUPPORT A LIGHTING CONTROL CABINET.

PRECAST CONCRETE PAD CONSTRUCTION

CONCRETE
THE CONCRETE SHALL BE CLASS A, PER MARICOPA ASSOCIATION OF
GOVERNMENTS STANDARD 725.

FINISH
THE CONCRETE FINISH SHALL HAVE A UNIFORM TROWELED SMOOTH FINISH
FREE OF ANY PITS AND BLEMISHES, PER MARICOPA ASSOCIATION OF
GOVERNMENTS STANDARD 505.

THE CONCRETE PAD TOP EDGES INSIDE AND OUTSIDE SHALL HAVE A 3/4"

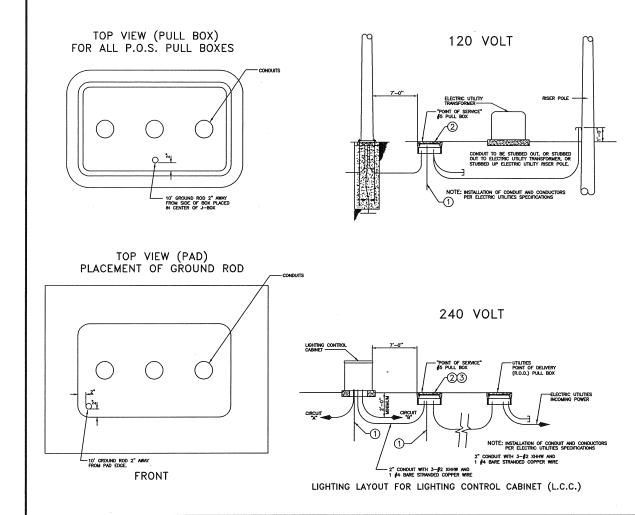
REINFORCEMENT
THE CONCRETE PAD SHALL HAVE #4 STEEL REINFORCING, PER MARICOPA
ASSOCIATION OF GOVERNMENTS STANDARD 727 (SEE LIGHTING CONTROL
CABINET PAD DETAIL).

ANCHOR BOLTS THE CONCRETE PAD SHALL BE EQUIPPED WITH (4) 1/2" x 6" HOT DIPPED GALVANIZED ANCHOR BOLTS WITH HEX NUT AND WASHER, PER MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD 771 (SEE LIGHTING CONTROL CABINET PAD DETAIL FOR PLACEMENT).

APPROVED MANUFACTURER
THE CONCRETE PAD MUST BE PRECAST BY AN APPROVED MANUFACTURER.

INSTALLATION NOTES:

- ALL FINISHED STREETLIGHT EQUIPMENT (POLE FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINET PADS) SHALL BE AT SIDEWALK GRADE, AND ADJACENT TO SIDEWALK UNLESS OTHERMSE NOTED.
- ALL LIGHTING CONTROL CABINETS SHALL BE INSTALLED FACING THE SIDEWALK UNLESS OTHERWISE NOTED.
- ALL CONDUIT BENDS SHALL BE 2 $^{\circ}$ SCHEDULE 40 P.V.C. 90 DEGREE BEND CONDUIT WITH A RADIUS OF NOT LESS THAN 18 $^{\circ}$ (FACTORY BENDS ONLY SHALL BE USED).
- 4. CONDUIT END BELLS SHALL BE INSTALLED BEFORE PULLING WIRE.
- 5. 5/8" x 10'-0" COPPER CLAD GROUNDING RODS SHALL BE INSTALLED AS SHOWN.
- WHEN STREETLIGHT EQUIPMENT (POLES, FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINETS) IS INSTALLED IN AN UPWARD SLOPE SECTION A RETAINING WALL SHALL BE INSTALLED OR THE GRADE SHALL BE CUT BACK TO OBTAIN A LEVEL AREA FOR AT LEAST 24" FROM STREETLIGHT EQUIPMENT. THE SLOPE OF THE FINISHED GRADE SHALL NOT EXCEED A 6:1 SLOPE AND SHALL MAICH AND CONFORM TO THE EXISTING TERRAIN.
- WHEN STREETLICHT EQUIPMENT (FOLES, FOUNDATIONS, PULL BOXES, AND CONTROLLER (CANINETS) IS INSTALLED IN A DOWNWARD SLOPE SECTION, NEEDED DIRT SHALL BE HAULED IN TO OBTAIN A LEVEL AREA FOR AT LEAST 24" FROM THE STREETLICHT COUPMENT. THE SLOPE OF THE FINISHED GRADE SHALL NOT EXCEED A 6:1 SLOPE AND SHALL MATCH AND CONFORM TO THE EXISTING TERRAIN.
- RETAINING WALL SHALL BE INSTALLED IN ALL AREAS THAT CAN NOT BE CUT BACK TO OGTAIN A LEVEL AREA FOR AT LEAST 24" FROM STREETLIGHT EQUIPMENT, IN AREAS THAT THE FINISHED GRADE WILL EXCEED A 1:6 SLOPE, AND IN AREAS THAT USE FLOOD IRRIGATION.
- RETAINING WALL SHALL HAVE A FOUNDATION 10" BELOW SIDEWALK GRADE.
- 10. RETAINING WALL SHALL HAVE A TROWELED SMOOTH FINISH WITH 1/2" ROUND EDGES.
- 11. BACKFILL WITH EXCAVATED MATERIALS AND THOROUGHLY TAMP PER MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD 601.
- 12. L.C.C. SHALL BE 7 FEET AWAY FROM P.O.S. PULLBOX. THE 2-10' RODS WILL BE ELECTRICALLY CONNECTED BY A # 4 BARE SOLID A.W.G. BOND WRE UNBROKEN. ACORN NUTS WILL BE FULLY ACCESSIBLE IN ALL LOCATIONS.



INSTALLATION NOTES:

POINT OF SERVICE PULL BOXES 120 VOLT CONNECTIONS

- 10' X 5/8" COPPER CLAD GROUNDING ROD TO BE INSTALLED IN THE P.O.S. PULL BOX.
- 2. ATTACHED TO THE GROUND ROD (IN THE POINT OF SERVICE PULLBOX) SHALL BE A #6 AWG BARE STRANDED COPPER WRE EXTENDING 18 INCHES FOR UTILITY NEUTRAL.

GROUND ROD CLAMP SHALL BE ACCESIBLE AT ALL LOCATIONS.

THE CITY OF MESA SHALL INSTALL WEATHERPROOF FUSE HOLDERS AND FUSES, FOR THE 120 VOLT SERVICE, CONDUCTORS IN THE P.O.S. PULL BOX FOR UTILITY CONNECTION.

THE NEUTRAL WIRE SHALL BE WHITE OR BE MARKED WITH WHITE TAPE AT LEAST SIX (6) INCHES ON THE CONDUCTOR.

THE POINT OF SERVICE PULL BOX FOR 120V CONNECTIONS SHALL BE 7 TO 100 FEET AWAY FROM THE STREETLIGHT SERVICED THE BOND WIRE FROM THE P.O.S. PULL BOX TO THE FIRST POLE SHALL BE A #6 AW BARE STRANDED COPPER CONDUCTOR. AFTER THE FIRST POLE THE BOND WIRE SHALL BE A #6 AWG BARE STRANDED FOR THE STRANDED SHALL BE A #6 AWG BARE STRANDED SHALL BE A #6 AWG B

GROUND RODS IN THE P.O.S. PULL BOXES AND L.C.C. CABINETS TO BE 2"TO 4" ABOVE CAP BLOCKS OR 2" TO 4" ABOVE CABINET PAD.

POINT OF SERVICE PULL BOXES FOR 240 VOLT CONNECTIONS IN A CABINET

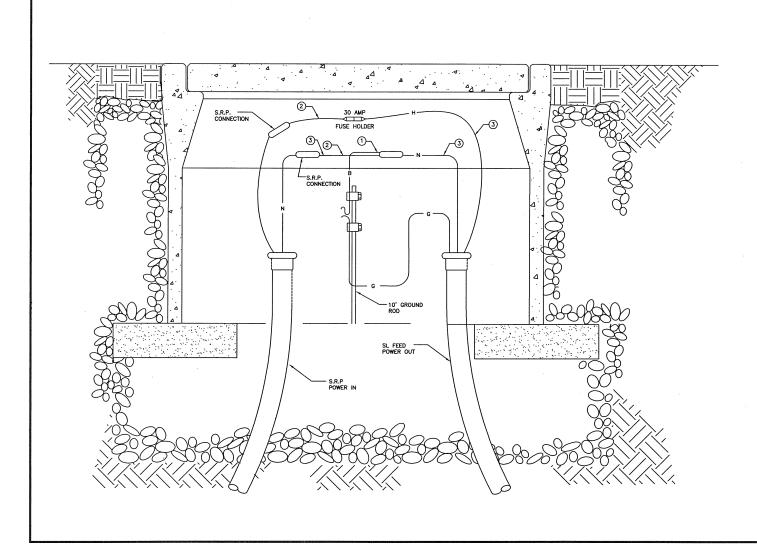
- 10' X 5/8" COPPER CLAD GROUNDING ROD TO BE INSTALLED IN THE P.O.S. PULL BOX.
- 2. GROUND ROD CLAMP SHALL BE ACCESIBLE AT ALL LOCATIONS.

THE NEUTRAL WIRE SHALL BE WHITE OR BE MARKED WITH WHITE TAPE AT LEAST SIX (6) INCHES ON THE CONDUCTOR.

THE POINT OF SERVICE PULL BOX FOR 240 VOLT CONNECTIONS SHALL BE 7 TO 100 FEET AWAY FROM THE STREETHIGHT CABINET. THE BOND WIRE FROM THE PLOS. PULL BOX TO THE CABINET SHALL BE A #A AWG BARE STRANDED COPPER CONDUCTOR, CONNECTED FROM ONE 10 FOOT GROUND ROD TO THE OTHER WINDOUT SPULIOR. 18 INCHES SHALL BE LEFT INSIDE THE CABINET FOR C.O.M. CREWS TO CONNECT INTERNALLY.

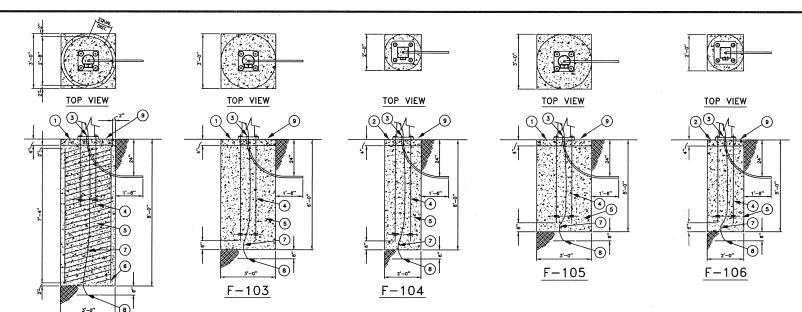
GROUND RODS IN THE P.O.S. PULL BOXES AND L.C.C. CABINETS TO BE 2"TO 4" ABOVE CAP BLOCKS OR 2" TO 4" ABOVE CABINET PAD.

 IN THE EVENT WHEREBY TWO CABINETS ARE FED OFF OF ONE POINT OF SERVICE PULL BOX, BOTH CABINET GROUND RODS ARE TO BE ELECTRICALLY CONNECTED TO THE GROUND ROD IN THE POINT OF SERVICE PULL BOX WITH #4 AWG STRANDED BARE CONDUCTOR UNDER A SEPARATE APPROVED GROUND ROD CLAMP.



GENERAL NOTES:

- #4 AWG BARE STRANDED COPPER BOND WIRE C.O.M. CONNECTION BONDING NEUTRAL WIRE TO GROUND ROD.
- (2) C.O.M. LEAVE A "TAIL" OF 2 FEET FOR S.R.P. TO CONNECT TO.
- (3) MINIMUM CONDUCTOR SHALL BE #10 XHHW, MAKE NEUTRAL WHITE FOR A MINIMUM OF 6".



GENERAL NOTES:

 ALL POLE FOUNDATIONS SHALL HAVE A 14" COPPER GROUNDING PLATE (M-73.6) 6" BELOW BOTTOM OF POLE FOUNDATION.

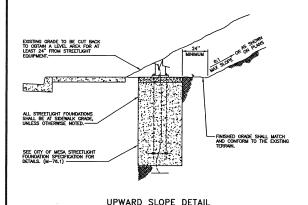
F-101

- ALL FINISHED POLE FOUNDATIONS SHALL BE AT SIDEWALK GRADE, UNLESS OTHERWISE NOTED.
- 3. ALL 45 DEGREE AND 90 DEGREE BENDS FOR CONDUIT SHALL HAVE A RADIUS OF NOT LESS THAN 18" (FACTORY BENDS ONLY SHALL BE USED).
- 4. UNDERGROUND WRING CIRCUITS SHALL BE INSTALLED IN SCHEDULE 40 RIGID P.V.C. CONDUIT. IT SHALL BE U.L. APPROVED FOR ABOVE GROUND AND UNDERGROUND USE WITH 90 DEGREE C WRE. MINIMUM DEPTH FROM TOP OF CURB TO TOP OF CONDUIT SHALL NOT BE LESS THAN 24" UNLESS OTHERWISE SPECIFIED.
- 5. INSPECTION BY ENGINEERING INSPECTOR SHALL BE REQUESTED BY THE ELECTRICAL CONTRACTOR WHEN THE POLE FOUNDATIONS ARE DUG, ANCHOR BOLTS, GROUND WIRE, AND GROUNDING PLATE ARE

- READY AND IN PLACE, PRIOR TO POURING CONCRETE.
- 6. WHEN CONCRETE FOUNDATIONS ARE POURED THEY SHALL BE VBRATED WITH A MECHANICAL VBRATOR.
- POLE FOUNDATIONS SHALL CURE FOR 72—HOURS BEFORE INSTALLING LIGHT POLES.
- IN IRRIGATED AREAS, POLES AND PULL BOXES SHALL BE INSTALLED IN SUCH A MANNER THAT THEY ARE KEPT OUT OF DIRECT CONTACT WITH IRRIGATION WATER.
- 9. IN AREAS THAT SLOPE AWAY FROM THE SIDEWALK, CURB, OR ROADWAY, THE GRADE AROUND THE POLES SHALL BE SUCH THAT SIDEWALK, CURB, OR ROADWAY CAN BE USED AS THE GRADE CONTROL POINT FOR THE POLE FOUNDATION LEEVATION.
- 10. UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATIONS AS DETERMINED BY THE ENGINEER.

FOUNDATION NOTES:

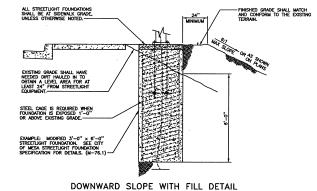
- 1. 3'-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE.
- 2) 2'-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE.
- 3 1" SCHEDULE 40 P.V.C. 90 DEGREE BEND CONDUIT WITH A RADIUS OF NOT LESS THAN 18" (FACTORY BENDS ONLY SHALL BE USED). CONDUIT SHALL PROJECTION MAXIMUM PROJECTION SHALL BE 4".
- (4) ANCHOR BOLTS WITH 4 HEX NUTS, AND 2 FLAT WASHERS AND 1 ANCHOR PLATE BOLT SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771, SEE GATA TABLE ON PCLE SPECIFICATION FOR SIZE, PROJECTION ABOVE FOUNDATION, AND BOLT CIRCLE.
- (5.) CLASS A CONCRETE PER M.A.G. STANDARD 725.
- 6. FOUNDATION SHALL REQUIRE B EA. (47 x 7'-4") VERTICAL BARS, WITH 3/8" ROUND COLD DRAWN STEEL WIRE SPIRAL CAGE WITH A 3" PER FOOT PITCH.
- (7) THE BOND WIRE IN THE CONCRETE FOUNDATION, SHALL BE A #8 STRANDED AND INSULATED WITH WHIM INSULATION. THE BOND WIRE IN THE CONCRETE FOUNDATION AND FOR TWO INCHES ON EACH SIDE OF THE FOUNDATION AND FOR TWO INCHES ON EACH SIDE OF THE FOUNDATION AND THE SHALL BE BARE TO THE CONNECTION POINT ON THE GROUNDING PLATE AND ON THE POLE.
- 8.) 14" COPPER GROUNDING PLATE (M-73.6).
- (9.) 4" CAP TO BE MINIMUM CLASS B CONCRETE PER M.A.G. STANDARD 725 .

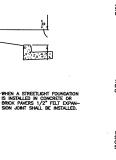


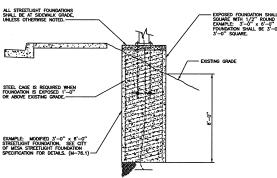
MEDIAN DETAIL

FINISHED GRADE SHALL BE FLUSH WITH STREETLIGHT FOUNDATION.

13 TO



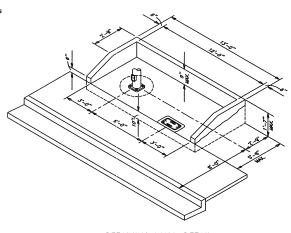




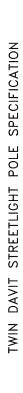
DOWNWARD SLOPE WITHOUT FILL DETAIL

INSTALLATION NOTES:

- SPECIAL FOUNDATION INSTALLATIONS SHALL BE CONSTRUCTED FOLLOWING THE CITY OF MESA STREETLIGHT FOUNDATION SPECIFICATION UNLESS NOTED OTHERWISE.
- 2. THE DEPTH OF FOUNDATION SHALL BE MEASURED FROM THE LOWEST PART OF THE EXISTING GRADE.
- EXPOSED FOUNDATION SHALL BE SQUARE WITH 1/2" ROUND EDGES.
- STEEL CAGE IS REQUIRED WHEN FOUNDATION IS EXPOSED 1'-0" OR ABOVE EXISTING GRADE.
- ALL FINISHED STREETLIGHT EQUIPMENT (POLE FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINET PADS) SHALL BE AT SIDEWALK GRADE, AND ADJACENT TO SIDEWALK UNLESS OTHERMSE NOTED.
- 6. WHEN STREETLIGHT EQUIPMENT (POLES, FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINETS) IS INSTALLED IN AN UPWARD SLOPE SECTION A RETAINING WALL SHALL BE INSTALLED OR THE GRADE SHALL BE CUT BACK TO OBTAIN A LEVEL AREA FOR AT LEAST 24" FROM STREETLIGHT EQUIPMENT. THE SLOPE OF THE FINISHED GRADE SHALL NOT EXCEED A 6:1 SLOPE AND SHALL MATCH AND CONFORM TO THE EXISTING TERRAIN.
- 7. WHEN STREETLIGHT EQUIPMENT (POLES, FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINETS) IS INSTALLED IN A DOWNWARD SLOPE SECTION, NEEDED DIRT SHALL BE HAULED IN 10 GOTAIN A LEVEL AREA FOR AT LEAST SHALL MIT EXCREENLED FOR THE FINANCE OR ADE SHALL MIT THE RUSPE OF THE FINANCE OR ADE SHALL MIT THE RUSPE OF THE FINANCE OR ADE SHALL MIT THE RUSPE OF THE FINANCE OF THE
- RETAINING WALL SHALL BE INSTALLED IN ALL AREAS THAT CANNOT BE CUT BACK TO OBTAIN A LEVEL AREA FOR AT LEAST 24" FROM STREETLIGHT EQUIPMENT, IN AREAS THAT THE TRINSHED GRADE WILL EXCEED A 1:6 SLOPE, AND IN AREAS THAT USE FLOOD IRRIGATION.
- 9. RETAINING WALL SHALL HAVE A FOUNDATION 10" BELOW SIDEWALK GRADE.
- RETAINING WALL SHALL HAVE A TROWELED SMOOTH FINISH WITH 1/2" ROUND EDGES.
- BACKFILL WITH EXCAVATED MATERIALS AND THOROUGHLY TAMP PER MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD 601.



RETAINING WALL DETAIL

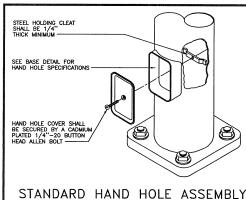


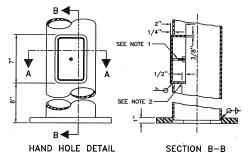
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HAND HOLE DETAIL

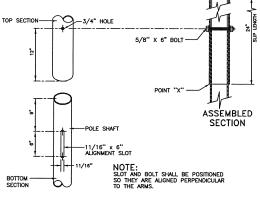
4 1/2"

SECTION A-A



- HAND HOLE COVER SHALL BE SECURED BY A CADMIUM PLATED 1/4"-20 BUTTON HEAD ALLEN BOLT AND HOLDING CLEAT.
- POLE GROUND SHALL BE 1/2" DIA. N.C. TAPPED HOLE LOCATED AS SHOWN.
- HAND HOLE SHALL BE ORIENTED SO THAT IT IS ALIGNED WITH THE MAST ARM.
- 4. HAND HOLE DIMENSIONS SHALL BE 4" BY 6 1/2". HAND HOLE COVER DIMENSIONS SHALL BE 4 1/2" BY 7".
- SLOT LENGTH OF BASE PLATE EQUALS ANCHOR BOLT DIA. PLUS 1/2" ON BOTH SIDES OF ANCHOR BOLT.

BASE DETAIL



SLIP JOINT AND TOP SECTION ATTACHMENT

	DATA TABLE
POLE #	DESCRIPTION
P-501	TOP SECTION WITH BRACKET
P-502	BOTTOM SECTION

NOTE:

TWIN DAYT STREETLIGHT POLES SHALL BE USED ONLY FOR REPLACEMENT AND ONLY TO MATCH EXISTING STREETLIGHT

BRACKET DETAIL **GENERAL NOTES:**

3/4" CHASE -

TOP VIEW

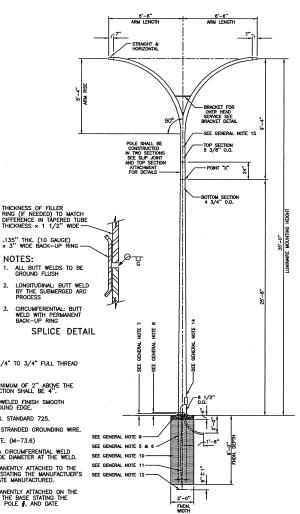
- THE POLE DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO ASSITO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, BASED ON A WIND SPEED OF 80
- THE POLE AND ALL PARTS SHALL BE STEEL
- THE POLE AND ALL POLE PARTS SHALL BE SAND BLASTED TO SSPC SPECIFICATIONS SP-8-8-8.3. A PRIMER COAT OF TIMEME SERIES 66 HI BUILD EPOXOLINE OR APPROVED EQUAL SHALL BE APPLIED TO A THICKNESS OF 3 DRY MILS. THE COLOR COATING SHALL BE TIMEME SERIES 73 ENDURA SHEED III OR APPROVED EQUAL, APPLIED TO A MINIMUM THICKNESS OF 3 DRY MILS. THE FINAL COATING SHALL BE TIMEMED SERIES 73 ENDURA CLEAR OR SHALL BE TIMEMED SERIES TO A MINIMUM THICKNESS OF THE TOTAL OF A MINIMUM THICKNESS OF THE TIMEMED SHALL BE SERIES TO SHALL BE ECHO GREEN, TIMEMEC COLOR NUMBER G1280.
- UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATION, AS DETERMINED BY THE ENGINEER.
- THE 1-1/4" ANCHOR BOLT SHALL HAVE A LENGTH DETERMINED BY THE DEPTH OF THE FOUNDATION, AND SHALL EXTEND TO 6" +OR- 1" ABOVE THE BOTTOM OF THE FOUNDATION. (M-73.6)
- ANCHOR BOLTS WITH (4) HEX NUTS, (2) FLAT WASHERS, AND (1) ANCHOR PLATE PER BOLT SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771. (M-73.6)

ANCHOR BOLTS SHALL HAVE 1/4" TO 3/4" FULL THREAD ABOVE NUT. (M-73.6)

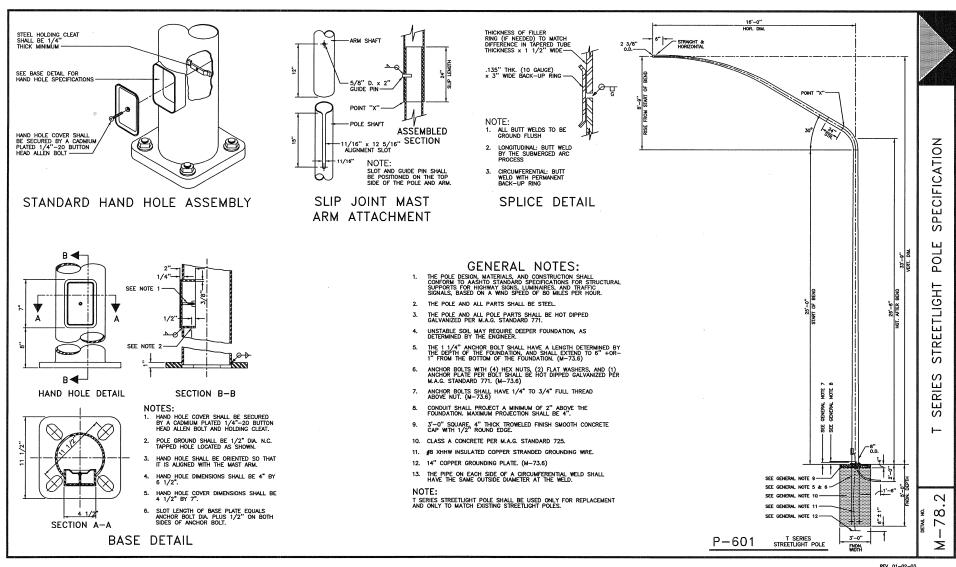
1/2" DIA. HOLE

--- 1/4" x 1 1/2" x 6" , STEEL BRACKET

- CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE THE FOUNDATION. MAXIMUM PROJECTION SHALL BE 4".
- 2'-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE.
- 10. CLASS A CONCRETE PER M.A.G. STANDARD 725.
- 11. #8 XHHW INSULATED COPPER STRANDED GROUNDING WIRE. 12. 14" COPPER GROUNDING PLATE. (M-73.6)
- THE PIPE ON EACH SIDE OF A CIRCUMFERENTIAL WELD SHALL HAVE THE SAME OUTSIDE DIAMETER AT THE WELD.
- A METAL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTUER'S NAME, C.O.M. POLE $\{\!\!\!\slash\!\!\!\slash\!\!\!\slash\!\!\!\slash\!\!\!\slash\!\!\!\slash\!\!\!\slash\!\!\!\!\!$ AND DATE MANUFACTURED.
- A METAL TAG SHALL BE PERMANENTLY ATTACHED ON THE SIDE OF THE MAST ARM NEAR THE BASE STATING THE MANUFACTURER'S NAME, C.O.M. POLE #, AND DATE



REV. 04/08/04







THICKNESS OF FILLER
RING (IP NEEDED) TO MATCH
DIFFERENCE IN TAPERED TUBE
THICKNESS X 1 1/2" WIDE

1.135" THK. (10 CALGE)
X 3" WIDE BACK-UP RING

NOTE:

1. ALL BUTT WELDS TO BE
GROUND FLUSH
BY THE SUBMERGED ARC
PROCESS

SPLICE DETAIL

3. CIRCUMFERENTIAL: BUTT WELD WITH PERMANENT BACK-UP RING

GENERAL NOTES:

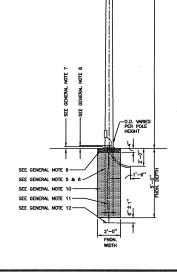
TAPERED POLE

3" x 3 1/4" TENON

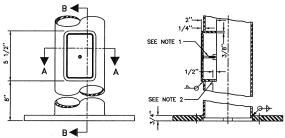
- THE POLE DESIGN, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, BASED ON A WIND SPEED OF 80 MILES PER HOUR.
- 2. THE POLE AND ALL PARTS SHALL BE STEEL.
- THE POLE AND ALL POLE PARTS SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771.
- UNSTABLE SOIL MAY REQUIRE DEEPER FOUNDATION, AS DETERMINED BY THE ENGINEER.
- THE 3/4" ANCHOR BOLT SHALL HAVE A LENGTH DETERMINED BY THE DEPTH OF THE FOUNDATION, AND SHALL EXTEND TO 6" +OR-1" FROM THE BOTTOM OF THE FOUNDATION. (M-73.6) (SEE DETAIL M-76.1, FOUNDATION DETAIL F-106, SEE BASE DETAIL ON THIS SHEET FOR ANCHOR BOLT PATTERN).
- ANCHOR BOLTS WITH (4) HEX NUTS. (2) FLAT WASHERS, AND (1) ANCHOR PLATE PER BOLT SHALL BE HOT DIPPED GALVANIZED PER M.A.G. STANDARD 771. (M-73.6)
- ANCHOR BOLTS SHALL HAVE 1/4" TO 3/4" FULL THREAD ABOVE NUT. (M-73.6)
- 8. CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE THE FOUNDATION. MAXIMUM PROJECTION SHALL BE 4".
- 2'-0" SQUARE, 4" THICK TROWELED FINISH SMOOTH CONCRETE CAP WITH 1/2" ROUND EDGE.
- 10. CLASS A CONCRETE PER M.A.G. STANDARD 725.
- 11. #8 XHHW INSULATED COPPER STRANDED GROUNDING WIRE.
- 12. 14" COPPER GROUNDING PLATE. (M-73.6)
 - 13. THE PIPE ON EACH SIDE OF A CIRCUMFERENTIAL WELD SHALL HAVE THE SAME OUTSIDE DIAMETER AT THE WELD.
 - 14. A STAINLESS STEEL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTURER'S NAME, C.O.M. POLE #, AND DATE MANUFACTURED.

NOTE:
SMALL TAPERED STREETLIGHT POLE SHALL BE USED ONLY FOR REPLACEMENT AND ONLY TO MATCH EXISTING STREETLIGHT POLES.

DATA	TABLE
POLE #	POLE HGT.
	.,v.,
P-701	9'-0"
P-702	10'-0"
P-703	11'-0"
P-704	12'-0"
P-705	13'-0"
P-706	14'-0"
P-707	15'-0"
P-708	16'-0"
P-709	18'-0"
P-710	20'-0"
P-711	22'-0"



STANDARD	HAND	HOLE	ASSEMBL

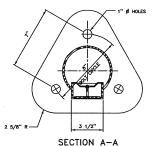


HAND HOLE DETAIL

SEE BASE DETAIL FOR HAND HOLE SPECIFICATIONS

HAND HOLE COVER SHALL BE SECURED BY A CADMIUM PLATED 1/4"-20 BUTTON HEAD ALLEN BOLT

SECTION B-B



NOTES:

- HAND HOLE COVER SHALL BE SECURED BY A CADMIUM PLATED 1/4"-20 BUTTON HEAD ALLEN BOLT AND HOLDING CLEAT.
- POLE GROUND SHALL BE 1/2" DIA. N.C. TAPPED HOLE LOCATED AS SHOWN.
- 3. HAND HOLE SHALL BE ORIENTED SO THAT IT FACES THE STREET.
- 4. HAND HOLE DIMENSIONS SHALL BE 3 1/2" BY 5 1/2".

BASE DETAIL

SPECIFICATION

POLE

STREETLIGHT

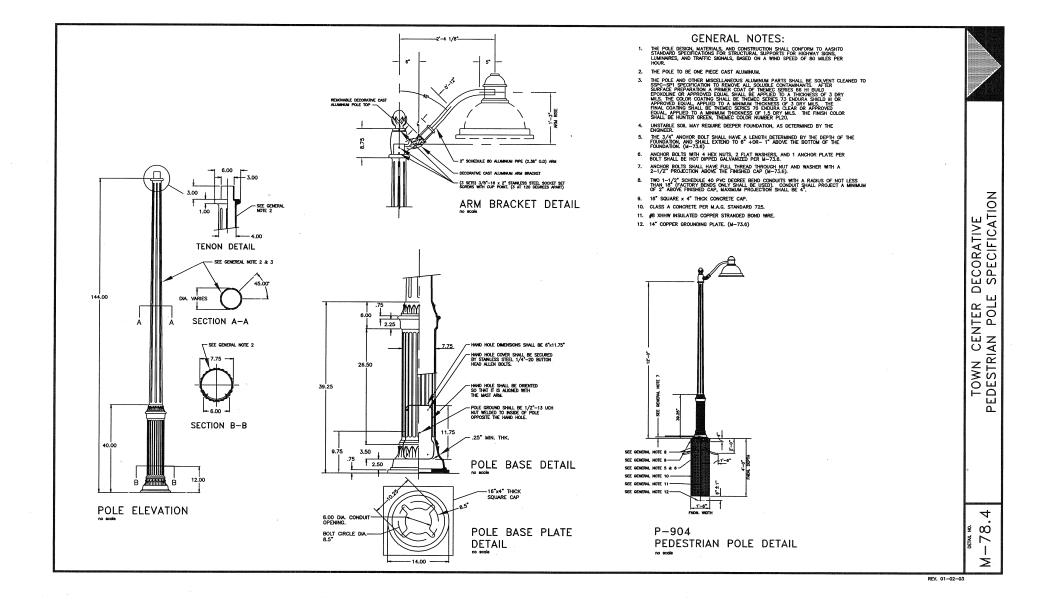
TAPERED

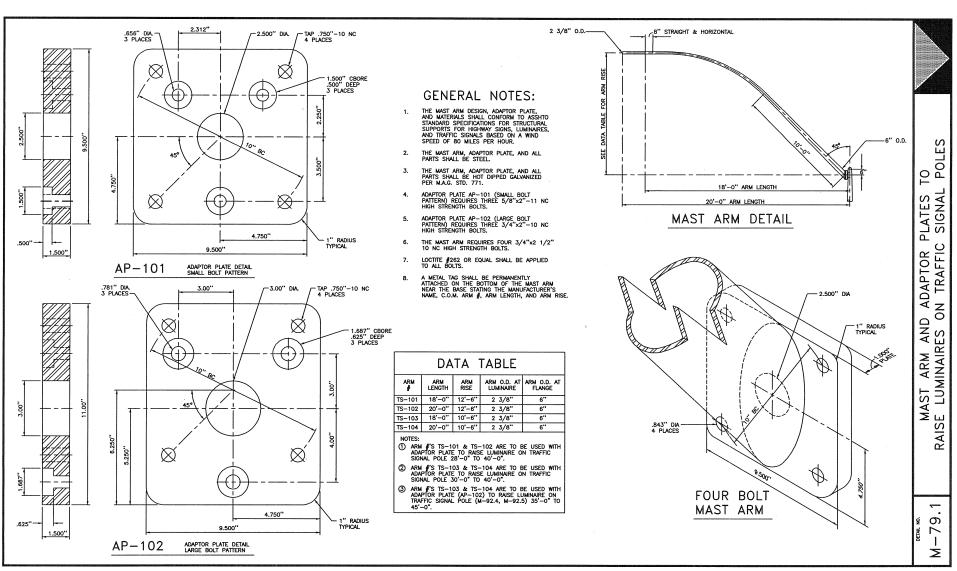
SMALL

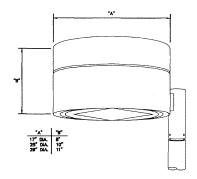
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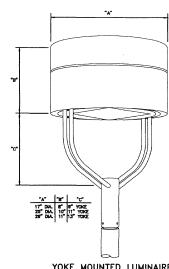




ARM MOUNTED LUMINAIRE

GENERAL DESCRIPTION

TO FURNISH A PARK LLAMMAINE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND DESIGNED FOR PARK LIGHTING WITH GENERAL SHAPE AS SHOWN.



YOKE	MOUNTED	LUMINAIRI

LA = ARM MOUNT LA = VOKE MOUNT LY = YOKE MOUNT LIAMMARE	ED 17 = 1		7 - 70 WATT	T	·
LUMBHAIRE				1	
	TED I	25° DIA. 10	0 = 100 WATT 5 = 150 WATT 5 = 250 WATT 0 = 400 WATT 0 = 1000 WATT	.2 - TYPE II DIST .3 - TYPE II DIST .4 - TYPE W DIST .5 - TYPE V DIST	S = HIGH PRESSURE SCOUM M = METAL HALIDE
LUMINAIRE HUMBER	EXAMPLE		_		
LA	- 1	7	07	.2	S
AVAILABLE LUMINAIR	ES				
LA-1707.25 LA-1707.26 LA-1707.35 LA-1707.36 LA-1707.45 LA-1707.56 LA-1707.56 LA-1707.56	LY1707.25 LY1707.26 LY1707.36 LY1707.46 LY1707.48 LY1707.56 LY1707.56 LY1707.56	LA-2515.25 LA-2515.24 LA-2515.34 LA-2515.45 LA-2515.46 LA-2515.54 LA-2515.54 LA-2515.54 LA-2515.54	LY-2515.25 LY-2515.26 LY-2515.36 LY-2515.36 LY-2515.46 LY-2515.40 LY-2515.56 LY-2515.56	LA-29100.3M LY-2 LA-29100.8S LY-2	8100.36 9100.36 9100.55 9100.5M
LA-1710.254 LA-1710.35 LA-1710.354 LA-1710.45 LA-1710.461 LA-1710.461	LY-1710.2M LY-1710.3S LY-1710.3M LY-1710.46 LY-1710.4M LY-1710.5S	LA-2525.2M LA-2525.3M LA-2525.46 LA-2525.4M LA-2525.6M	LY-2525.25 LY-2525.24 LY-2525.38 LY-2525.48 LY-2525.48 LY-2525.48	-	LOR TABLE
LA-1710.5M	LY-1710.5M	LA-2525.5M	LY-2525.55 LY-2525.5M		
LA-1715.23 LA-1715.2M LA-1715.3M LA-1715.3M LA-1715.4S LA-1715.5S LA-1715.5S	LY-1715.28 LY-1715.26 LY-1715.36 LY-1715.46 LY-1715.58 LY-1715.58 LY-1715.59	LA-2540.25 LA-2540.26 LA-2540.36 LA-2540.36 LA-2540.46 LA-2540.46 LA-2540.56	LY-2540.25 LY-2540.2M LY-2540.3M LY-2540.4M LY-2540.4M LY-2540.4M LY-2540.6M	ECHO GRE BL	EN = 01280 NCK = NOS

APPROVED MANUFACTURERS: KIM CC SERIES, CARDOO HARDTOP CNI, STERNER ELEMENTS HUMBOLDT.

REQUIREMENTS

- THE HOUSING SHALL BE ONE PIECE SPUN AND/OR FORMED EXTRUDED ALL/MINUM WITH A ROLLED—FORMED FLANGE.
- DECORATIVE RISS OR REVEAL MAY BE ROLLED AND/OR FORMED INTO THE SIDEWALLS.
- 3. SIDEWALLS SHALL BE FREE WELDS OR FASTEMERS.
- Internal allamnum casting provides reinforcement and mounting support for components and side arm.
- 6. THE HOUSING SHALL BE OF ONE DOOR WITH ACESS TO BOTH THE OFTICAL AND ELECTRIC SYSTEMS. THE SYSTEMS SHALL BE HINGED AND REMOVABLE FOR EASE OF SERVICING.
- 7. THE HOUSING SHALL BE ABLE TO WITHSTAND 1000-HOUR SALT SPRAY TEST PER ASTM 117.
- 8. THE HOUSING SHALL BE ABLE TO BE LEVELED EASILY WITH LITTLE EFFORT.

B. ARM MOUNTED LUMINAIRE

- EXTRUDED ALLMINUM ARM (RECTANGULAR) WITH INTERNAL CHANGELS/BOLT GUIDES.
- 2. TWO INTERNAL BOLTS AND OR THREADED GALVANIZED STEEL THE ROOS COMPLETE WITH LOCK NUTS.
- 3. REINFORCING PLATE WITH WIRE STRAIN RELIEF.
- 4. ARM TO BE CIRCULAR CUT TO MATE WITH ROUND SUPFITTER AND UNBNAME.
- 5. CAST ALLMANUM SUPFITIER (ROUND) SHALL FIT A POLE WITH A TOP TENON 2–3/8 $^{\circ}$ 0.0. \times 4–1/2 $^{\circ}$
- G. ATTACHMENT OF THE SUPFITTER SHALL BE ACCOMPLISHED BY FOUR 3/8" STAINLESS STEEL ALLEN SCREWS.

- A CAST ALIMMAN SUPFITTER (ROUND) SHALL SUPPORT THE HOUSING WITH TUBULAR PARALLEL YORCS AT FOUR POINTS.
- CAST ALLMINUM SUPFITIER (ROUND) SHALL FIT A POLE WITH A TOP TENON 2-3/8" O.D. x 4-1/2".
- ATTACHMENT AND LEVELING OF THE SUPFTITER SHALL BE ACCOMPLISHED BY FOUR 3/8" STANLESS STEEL ALLEN SCREWS.
- 4. CAST ALLMINUM SUPFITTER SHALL PROVIDE A SPLICE COMPARTMENT.

- 1. A PRIMER COAT OF THEMED SERIES 66 HI BUILD EPOXOLINE OR APPROVED EQUAL SHALL BE APPLIED TO A DRY THICHESS OF 3 MILS.
- 2. THE FINISH COATING SHALL BE THEMED SERIES 73 ENDURA SHIELD B OR APPROVED EQUAL, APPLIED TO A DRY THICKNESS OF 3 MBLS.
- 3. THE FIRSH COLOR CALLED OUT IN THE PLANS AND/OR SPECIFICATIONS SHALL BE THEMED COLOR MURISHER (SEE COLOR TABLE).
- 4. THE FINAL COATING SHALL BE THEMEC SERIES 78 ENDURA CLEAR OR APPROVED EQUAL, APPLIED TO A MINIMUM DRY THICKNESS OF 1.5 MILS.

E. LAMP SOCKET

- THE LAMP SOCKET SHALL BE MODIL MULTIPLE PORCELAIN ENCLOSED. THE RATING OF THE SOCKET SHALL EXCEED THE LAMP STARTING VOLTAGE.
- THE SCREW SHELL OF THE SOCKET SHALL CONTAIN INTEGRAL LAMP ORPS TO ASSURE ELECTRICAL CONTACT UNDER CONDITIONS OF NORMAL VERNATION.
- 3. THE SOCKET SHALL CONFORM TO TOJ-147 SPECIFICATION SECTION OF EEL STANDARDS.
- 4. THE SOCKET SHALL BE IN A HORIZONTAL POSITION.

F. LENS FRAME

- THE LENS FRAME SHALL BE SECURED TO THE HOUSING AT ONE END, AND HINGED TO THE HOUSING AT THE OPPOSITE END.
- 3. THE HINGE SHALL BE ZINC PLATED COLD ROLLED STEEL WITH STAINLESS STEEL PIN OR A CONCEALED STAINLESS STEEL HINGE.
- 4. CLOSURE OF LENS FRAME SEALS REFLECTOR, SEAL SHALL BE VALCANIZED SULCONE GASGET OR HOLLOW EXTRADED SULCONE RUBBER GASGET OR EP.D.M. GASGET MATERIAL.

Q. LEHS FRAME GLASS

THE LENS FRAME GLASS SHALL HAVE A MINIMUM THICKNESS OF 3/16" THICK CLEAR FLAT TEMPERED GLASS FREE FROM IMPERFECTIONS AND STRATIONS.

- THE LENS FRAME GLASS SHALL BE REMOVABLE FOR EASE OF REPLACEMENT.
- 3. THE LEMS FRAME GLASS SHALL BE FULLY GASICETED BY A WILCONIZED SELCONE GASICET.

H. REFLECTIOR

- 2. THE REFLECTOR SHALL BE CHEMICALLY BRIGHTENED AND ANDDIZED TO A SEAR-SPECULAR FINISH AND/OR SPECULAR SEGMENTS MOUNTED TO CREATE A REFLECTIVE SURFACE.
- 3. THE REFLECTOR DESIGN SHALL PRODUCE A TYPE I, II, III AND V DISTRIBUTION PATTERN (ADJUSTABLE) WITH PROPER POSITIONING OF THE LAMP SOCKET.
- 4. THE REFLECTOR SHALL BE FIELD ROTATABLE IN BO-DEGREE INCREMENTS.
- 5. THE REFLECTOR SYSTEM SHALL BEALED TO PREVENT CONTAMINATION. THE OPTICAL SYSTEM SHALL BE SEALED WITH NO VENTING OF THE OPTIC SYSTEM.
- 8. THE REFLECTOR SHALL BE RIGIDLY MOUNTED WITHIN THE HOUSING TO ASSURE A FIRM SURFACE FOR PROPER SEALING WHEN UNIT IS CLOSED.
- THE REPLECTOR SHALL CAPABLE OF BEING REMOVED FOR CLEANING AND ACCESS TO BALLAST AND MOLINTING HARDWARE. REMOVAL SHALL BE DONE CRICKLY WITH DUCK RELEASE, MON —TOOL FASTENERS. WINE SHALL UTILIZE A CLICK—DISCONNECT PLUG.

L TERMINAL BOARD

- THE TERMINAL BOARD SHALL BE MOLDED OF FIBERGLASS REINFORCED POLYESTER WITH PROTECTIVE BARNERS BETWEEN EACH TERMINAL.
- 2. THE TERMINAL SCREWS SHALL BE OF THE CAPTIVE TYPE AND EACH SCREW SHALL BE EQUIPPED WITH WITE GRIPS WHICH WILL AUTOMATICALLY BE RAISED AND LOWERD AS THE TERMINAL SCREW IS OPERATED.
- 3. THE TERMINALS SHALL BE CAPABLE OF ACCEPTING UP TO #8 AND COMMUNICION.
- THE TERMINAL BOARD SHALL HAVE THREE TERMINALS, ONE OF THESE TERMINALS SHALL BE FOR THE SYSTEMS GROUND AND SHALL BE CONNECTED TO THE FIXTURE HOUSING.
- 5. ALL UNITS ARE TO BE PRE-WRED TO A SHIGLE TERMINAL BOARD REQUIRING OILY CUSTOMER CONNECTIONS TO CLEARLY IDENTIFIED TERMINALS

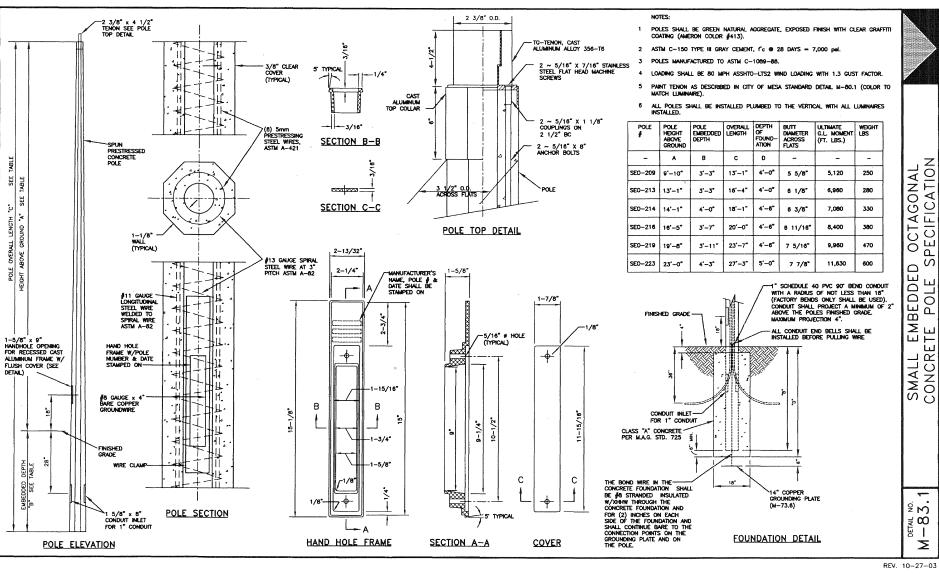
ALL HANDMARE SHALL BE OF NON-CONROGSVE OR SUITABLY PROTECTED BETAL. WHEN INCOSSARY TO PREVENT ELECTROLYTIC ACTION BY CONTACT WITH ALIMBMAN, COMPONENTS SHALL BE SEQURED TO THE LUMBMARE FRAME WITH STANLESS STEEL HANDMARE OF THE AMSI 300 SERIES CHROME-HOCKE GRADE.

K. BALLAST

- THE BALLAST SHALL, BE OF THE BUILT—IN DESIGN MOUNTED WITHIN THE LIMINAIRE IS SUCH A MANNER THAT SMIPLE DISCONNECTING PLUOS CAN IEASLY DISCONNECT IT.
- 2. THE BALLAST AND OTHER AUXILARY EQUIPMENT SHALL HE MOUNTED IN A REMOVABLE PANEL OR TRAY.
- 3. THE BALLAST CORE LAMBATION SHALL BE OF HIGHEST QUALITY ELECTRICAL GRADE STEEL WELDED TOOCHHER TO MINMAZE HOISE AND ASSURE TROUBLE FREE OPERATION OVER THE LIFE OF THE LUBRIANE.
- 4. THE BALLAST COILS SHALL BE PRECISION WOUND ON FORMED INSULATING BOBBINS AND TERMINALS SHALL BE OF THE PUSH ON TYPE.

- THE COMPONENT TO PROVIDE THE HIGH STARTING VOLTAGE REQUIRED BY THE HIGH PRESSURE SCORM LAMP SHALL BE MOUNTED ON A NON ENCAPSULATED PLUG-IN MODILE WHICH SHALL BE EASILY ACESSABLE WITHOUT DISTURBING OTHER COMPONENTS OF THE BALLAST ASSEMBLY
- R. THE METAL HALDE BALLAST SHALL BE OF THE CONSTANT WATTAGE AUTOTRANSFORMER TYPE DESIGNED FOR A (SEE DATA TABLE) WATT METAL HALDE LAMP (PER AMSI CODE). THE BALLAST SHALL BE RATED FOR 120/2008/240/277 BN PUT VOLTATUE.
- THE METAL HADDE MALLAST SHALL BE CAPABLE OF STARTING AND OPENATION OF METAL HADDE MALLAST SHALL BE CAPABLE AS SPECIFIED IN DATA TABLE; DOES NOT AS A CAPABLE AS SPECIFIED IN DATA TABLE; DOES NOT AS A CAPABLE MALLAST MAST PROTECT ITRUST AGARDET MORAL LAMP FALLINE MODES. THE MALLAST SHALL BE CAPABLE OF OPERATION HIT MAPS IN AN OPEN OR SHORT DRICKIT CONDITION FOR SIX MONTHS WITHOUT SOMEPICANT LOSS OF BALLAST LEY.

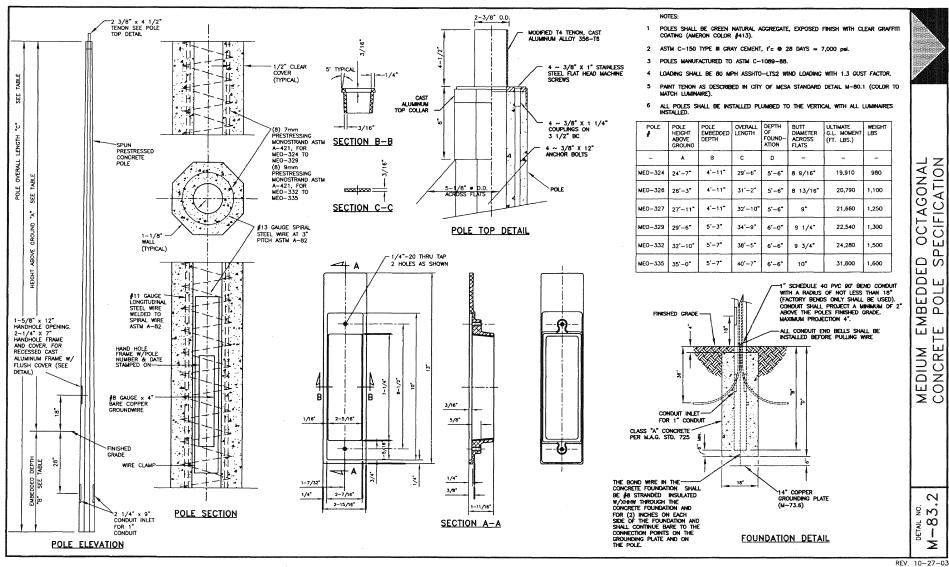


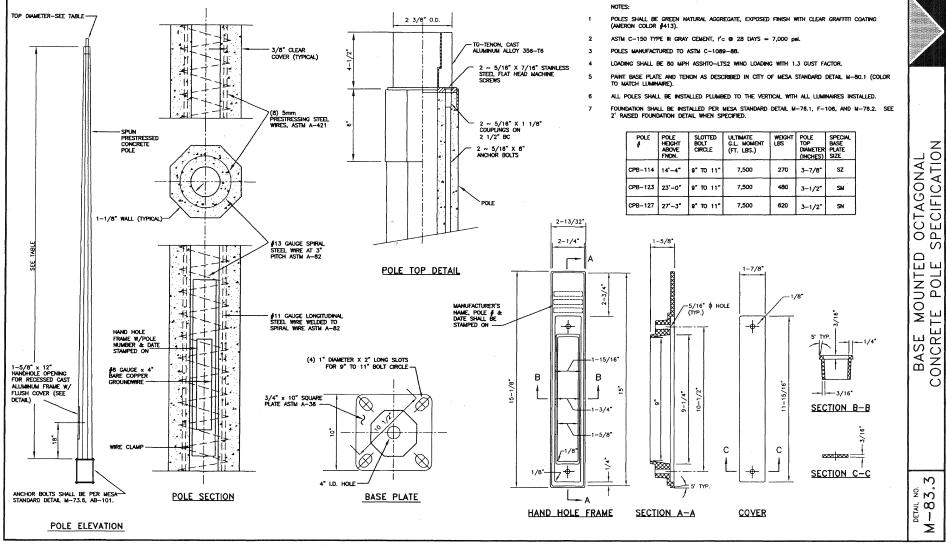




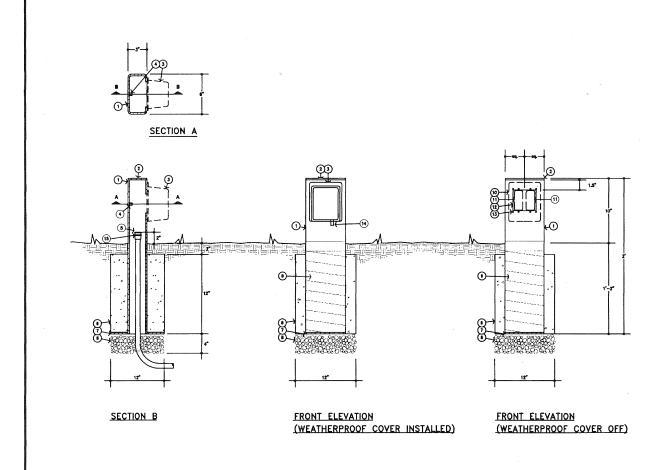
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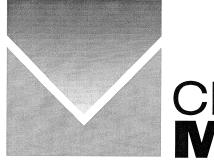






KEYED NOTES

- (B) (B)



CITY OF MESA

Great People, Quality Service!

TRAFFIC SIGNAL DETAILS 2006



PEORIA DETAIL 176

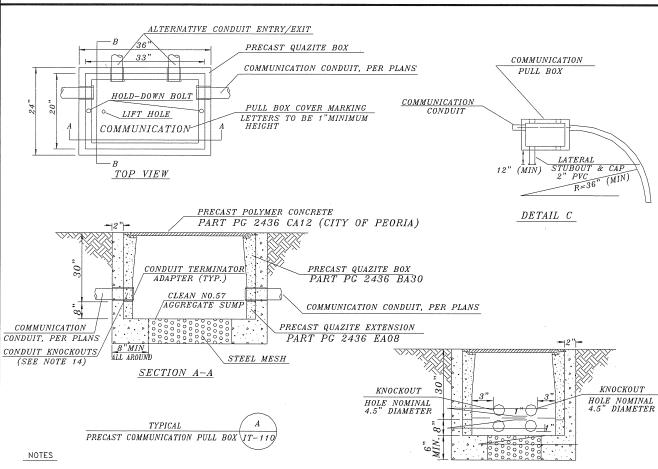
INTERCONNECT PRECAST COMMUNICATION PULL BOX

DATE



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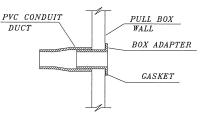
CITY ENGINEER



- PULL BOX SHALL BE PROVIDED WITH COVER AND SPECIAL CONCRETE FOOTING, COVER SHALL HAVE EMBOSSED NO-SKID PATTERN AND BE LABELED "CITY OF PEORIA COMMUNICATIONS".
- TOPS OF PULL BOXES SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OF ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE PULL BOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE BOX SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADE. WHERE PRACTICAL, PULL BOXES SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULL BOXES SHOWN ADJACENT TO STANDARDS SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
- ALL COVERS SHALL BE INTERCHANGEABLE BETWEEN BOXES. TOP OUTSIDE EDGE OF ALL CONCRETE COVERS AND PULL BOXES SHALL HAVE A 0.25 INCH MIN. RADIUS.
- WHEN PULL BOX IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE BOX SHALL BE ADJUSTED SO THAT THE TOP OF THE BOX IS FLUSH WITH THE TOP OF THE SIDEWALK.
 PULL BOX SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.
- ALL BENDS SHALL BE FACTORY BENDS.
- CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2 INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE CITY OF PEORIA USE
- ADDITIONAL CONDUIT ENTRANCES AS SHOWN ON PLANS. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL)
- IN EITHER CONDUIT DUCT BETWEEN ENTRANCE LOCATIONS (PULL BOXES AND/OR VAULTS).

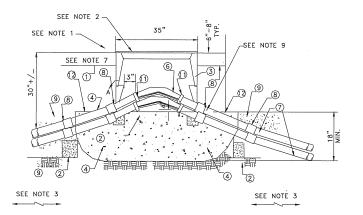
 10. ADDITIONAL CONDUIT ENTRANCES AS SHOWN ON PLANS.
- 11. SEE SPECIAL PROVISIONS REGARDING HOLD DOWN BOLTS FOR TRAFFIC COVERS.
- 12. TERMINATORS FOR COMMUNICATION DUCTS AND LATERAL STUBOUTS MAY BE PROVIDED INSTEAD OF KNOCKOUTS. WHEN KNOCKOUTS ARE USED, SPECIAL CONDUIT TERMINATORS SHALL BE PROVIDED PER THE SPECIAL PROVISIONS.
- 13. ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM, VARIATIONS ARE ALLOWABLE.
- 14. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
- 15. ALL GROUND CONNECTIONS SHALL BE COATED WITH OXIDATION PROHIBITING COMPOUND.
- 16. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRA-VIOLET EXPOSURE.

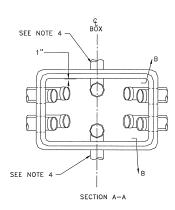


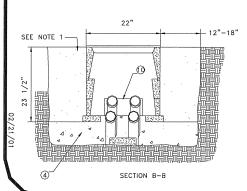


CONDUIT TERMINATOR ADAPTER

NOTE: WITH RIGID METAL CONDUIT USE THREADED NIPPLE AND LOCKING COLLAR INSIDE BOX WITH GASKET.







	TATA CILITATE LIST		
ITEM	DESCRIPTION		
1	WARNING TAPE		
2	CONCRETE BUILDING BLOCK 2" X 4" X 8"		
3	NO. 7 PULLBOX WITH EXTENSION W/ EXCEPTIONS AS DRAWN		
4	CLASS "B" CONCRETE AGGREGATE DESIGNATED SIZE NO. 57		
5	NOT USED		
6	COMMUNICATION CABLES (SEE NOTE 6)		
7	4 X 1 1/4" SECHEDULE 40 P.V.C. CONDUIT DUCT BANK		
8	R.M.C. TO P.V.C. COUPLING		
9	HALF SACK SLURRY		
10	KNOCK OUT 6" X 12" — SEE NOTE 10		
11	BELL END FOR PVC — SEE NOTE 9		
12	30 LB FELT PAPER		

MATERIAL LIST

CONSTRUCTION NOTES

NOTES:

- BACKFILL WITH DESIGNATED SIZE NO. 57 AGGREGATE TO BOTTOM OF THE PULL BOX. BACKFILL AROUND SIDES OF THE PULL BOX WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
- THIS BOX IS DESIGNED FOR NON-TRAFFIC AREAS. BOX AND COVER SHALL BE CONCRETE OR COMPOSITE, COVERS SHALL BE SECURED WITH 3/8"BOLTS, NUTS & WASHERS, WHICH WILL BE OF BRASS, STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL STAINLESS STEEL SHALL HAVE A CHROMIDM CONTENT OF NOT LESS THAN 18% AND A NOTEL OF NOT LESS THAN 18% AND A NOTEL OF NOT LESS THAN 18% NOTEL OF NOTEL OF NOT LESS THAN 8%, NUTS SHALL BE RECESSED BELOW TOP
- . CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN 1"/FT. FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
- 4. LATERAL CONDUITS AS REQUIRED.
- 5. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
- 6. COMMUNICATIONS CABLE SHALL BE TAGGED WITH CABLE IDENTIFICATION.
- NUMBERS IN CIRCLES REFER TO ITEMS IN MATERIAL LIST.
- 8. COMMUNICATION SHALL BE THE TITLE EMBOSSED ON THE LID. COVER LETTERING SHALL BE 1" MINIMUM LETTERS.
- 9. USE PVC TO EXTEND INTO PULL BOX.
- 10. USE FELT PAPER TO BLOCK OPENING BETWEEN CONDUITS.
- 11. POUR CONTROLLED LOW STRENGTH MATERIAL UP TO WITHIN 12" OF PULLBOX
- 12. REFER TO T-453 FOR ALL PULL BOX DIMENSIONS EXCEPT KNOCK-OUT.
- 13. WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREA, 1/2" PREMOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND THE PULL BOX.
- 14. REFER TO PLANS FOR NUMBER OF CONDUITS TO BE INSTALLED.
- 15.Install pull boxes at 660 foot intervals

APPROVALS

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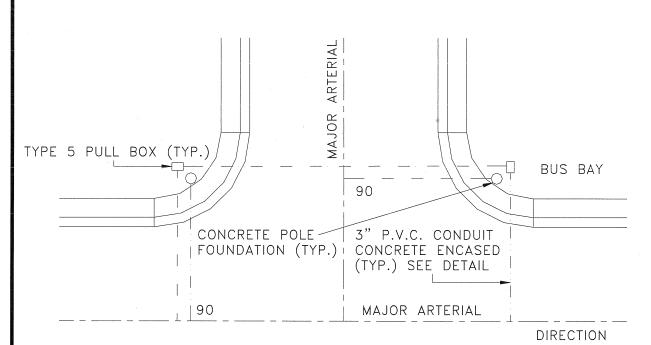
PEORIA DETAIL 281

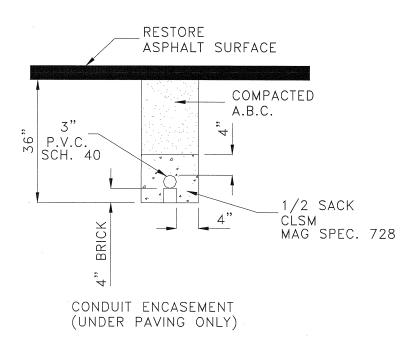
CONDUIT INSTALLATION STANDARDS

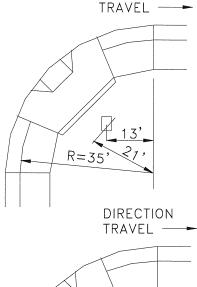


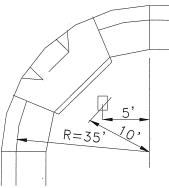
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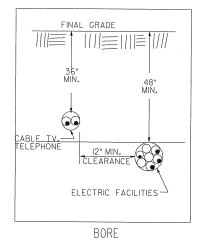
CITY ENGINEER

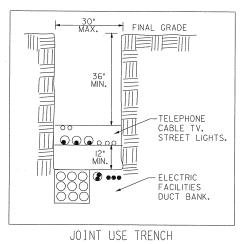


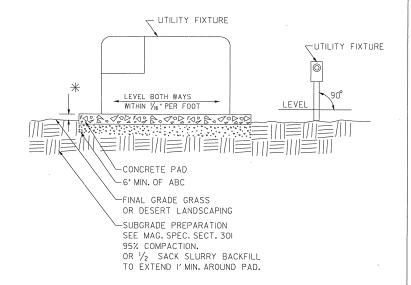


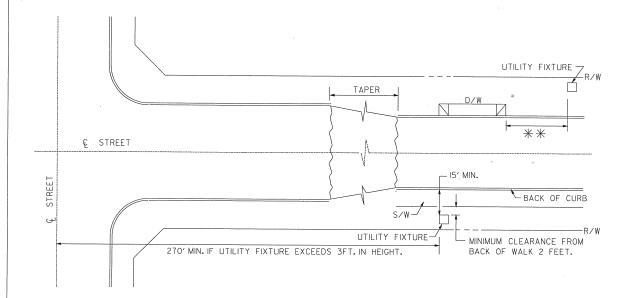












- ** TOP OF PAD SHALL:

 MATCH EXISTING UTILITY PAD ELEV.

 IF NO UTILITY PAD EXISTS THE NEW

 PAD ELEV. SHALL BE AT LEAST 4*

 ABOVE SIDEWALK OR TOP OF CURB

 WHICHEVER IS GREATER.
- * * 50' MIN. IF UTILITY FIXTURE EXCEEDS 3FT. IN HEIGHT.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

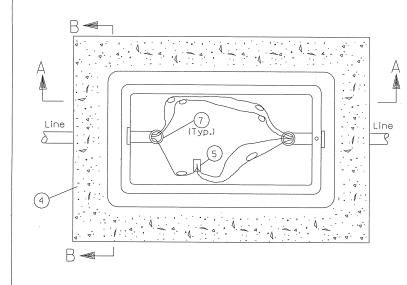
APPROVED: CITY ENGINEER

DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

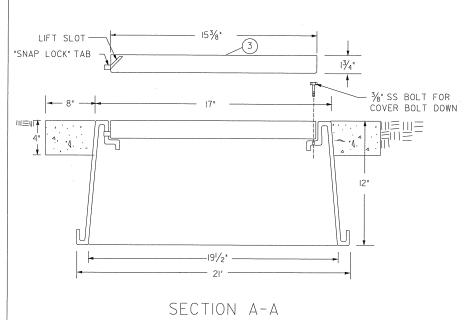
STANDARD UTILITY FIXTURE & CONDUIT PLACEMENT

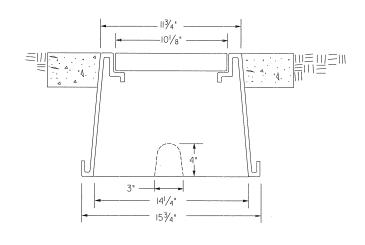
DETAIL T-440 REVISED 1998



NOTES:

- 1. BOX SHALL BE FIBERGLASS OR PLASTIC.
- 2. COVERS SHALL BE SECURED WITH 3% BOLTS, NUTS AND WASHERS, WHICH SHALL BE OF BRASS, STAINLESS STEEL, OR OTHER CORROSION RESISTANT MATERIAL. STAINLESS STEEL SHALL HAVE A CHROMIUM CONTENT OF NOT LESS THAN 18% AND A NICKEL CONTENT OF NOT LESS THAN 8%. NUTS SHALL BE RECESSED BELOW TOP SURFACE OF COVER.
- (3.) COVER LETTERING SHALL BE $\frac{1}{2}$ MIN. LETTERS CAST IN STANDARD MARKINGS: (ELECTRICAL)
- (4.) CONCRETE APRON SHALL BE CLASS "B" (8" by 4")
- (5.) ALL ELECTRICAL JUNCTIONS AND TERMINATIONS SHALL BE MADE IN A "CAST LOCK" EPOXY SEAL SYSTEM (WATER PROOF).
- 6. THE BOX (WITH PROPERLY TERMINATED CONNECTIONS AND CONDUIT SEALANT) SHALL BE FILLED WITH SAND.
- (7.) THE CONDUIT ENDS SHALL BE SEALED WITH SILICON SEALANT.
- 8. CONDUIT ENTERING THE BOX SHALL HAVE A 90 DEGREE LONG RADIUS BEND (INSIDE THE BOX).
 THE CONDUIT'S OPENING, INSIDE THE BOX, SHALL BE AT LEAST 4' BELOW THE LID, OPENING SHALL
 HAVE SMOOTH EDGE. IF THE CONDUIT IS PVC. A SLIP COUPLING MUST BE USED. IF THE CONDUIT IS RIGID
 PIPE, A PROTECTIVE BUSHING SHALL BE USED.
- 9. CONDUCTORS SHALL HAVE A MINIMUM OF 24" SLACK FROM CONDUIT BELL END.





SECTION B-B

APPROVED:

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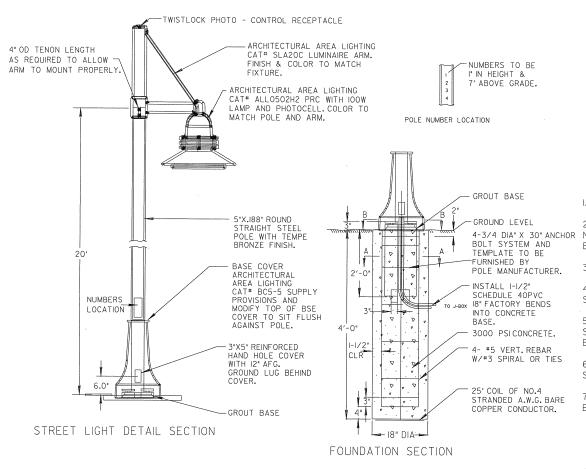
CITY ENGINEER DATE



IN-GROUND ELECTRICAL PULL BOXES (PARKS)

DETAIL T-452

REVISED 1998

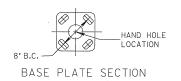


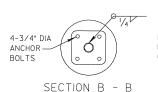
GENERAL NOTES

- I. POLES ARE TO BE DESIGNED PER A.A.S.H.T.O SPECIFICATIONS.
- 2. ACCEPTED POLE MANUFACTURER: ARCHITECTURAL AREA LIGHTING OR APPROVED EQUAL.
- 3. ACCEPTED LUMINAIRE MANUFACTURER: ARCHITECTURAL AREA LIGHTING CAT#ALLO502H OR APPROVED EQUAL.
- 4. FOR PAINT SPECIFICATIONS SEE TEMPE STREET LIGHTING SPECIFICATIONS T-101.2.
- 5. DESIGN WIND LOAD = 70 MPH, CATAGORY 'C'
- 6. ALL POLES TO BE FUSED USING WATERPROOF FUSE HOLDERS IN HAND HOLE AND IN J-BOX.

FOUNDATION NOTES

- I. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTRUBED EARTH.
- GROUND LEVEL 2. FOUR 3/4" DIAMETER X 30" GALVANIZED ANCHOR BOLTS WITH LEVELING 4-3/4 DIA" X 30" ANCHOR NUTS AND WASHERS. TACK WELD NUTS TO WASHERS AND WASHERS TO BOLT SYSTEM AND BASE PLATE AFTER TIGHTENING. (3" PROJECTION)
 - 3. I-I/2" THICK EMBECO NON-SHRINK GROUT #636 OR APPROVED EQUAL.
 - 4. UNSTABLE SOILS AND/OR POLE HEIGHTS OVER 40' SHALL REQUIRE SPECIAL ENGINEERING DESIGN CALCULATIONS.
 - 5. A 25' COIL OF NO.4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED. IT SHALL BE CONNECTED TO POLES GROUNDING SCREW IN THE BASE OF THE POLE.
 - 6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
 - 7. REINFORCING STEEL TO BE #5 & LARGER ASTM A615 GRADE 60. BARS SMALLER THAN #5 MAY BE ASTM A615 GRADE 40.







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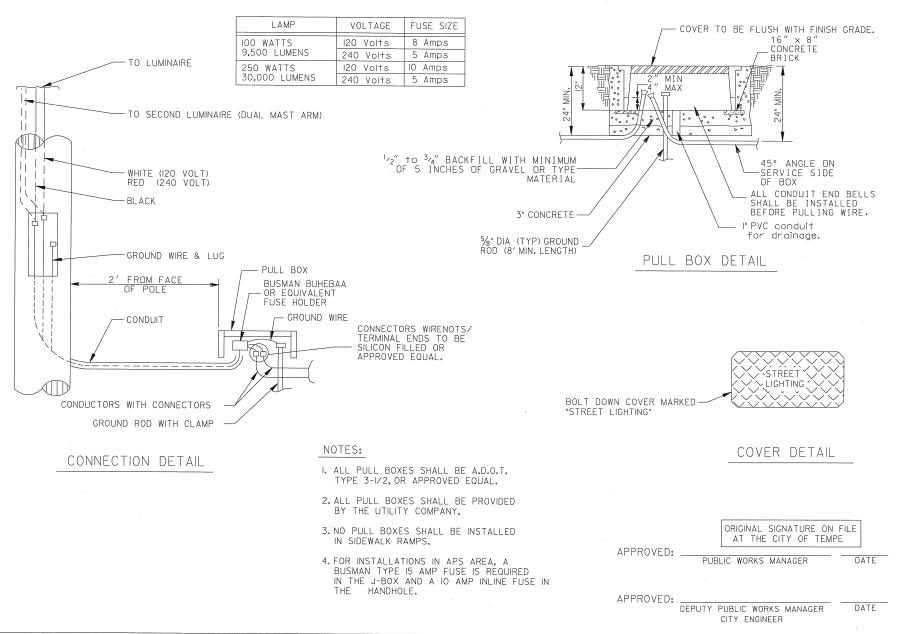
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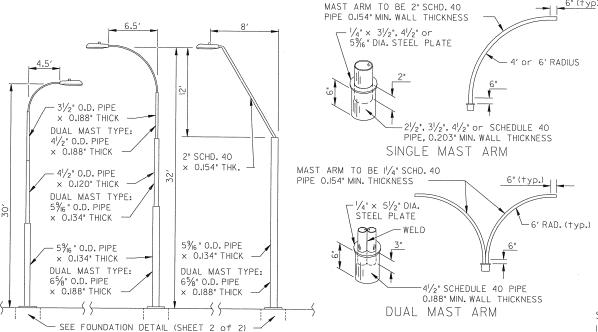
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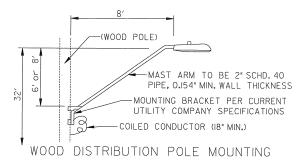
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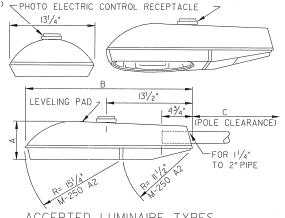




MNTG. HGT.	ARM	5% " PIPE	4 ¹ / ₂ " PIPE	3½" PIPE	POLE HEIGHT
28′	4′-6"	10'-0"	6'-9"	6′-9"	23'-6"
30′	4′-6"	10'-0"	7′-9"	7′-9*	25'-6"
32′	6′-6"	10'-0"	7′-9"	7′-9"	25′-6"

NOTE: FOR PAINT SPECIFICATIONS SEE TEMPE STREET LIGHTING SPECIFICATION T-101.2





ACCEPTED LUMINAIRE TYPES (OR APPROVED EQUAL)

The same of the sa	LUMINAIRE TYPE	А	В	С
	M-250 A2 CUTOFF SERIES	61/2"	271/2"	12"
	M-250 R2 CUTOFF SERIES	53/4"	261/4"	16"

SPECIFICATION FEATURES:

- I) POWER/MODULE BALLAST ASSEMBLY FOR M-256 A2 ONLY.
- 2) $1\frac{1}{2}$ " TO 2" FOUR- BOLT SLIPFITTER.
- 3) DIE-CAST ALUMINUM HOUSING WITH ELECTROCOAT GRAY PAINT FINISH.
- 4) ADJUSTABLE MOGUL BASE SOCKET.
- 5) ALGLAS FINISH ON REFLECTOR.
- 6) NO-TOOL PE RECEPTACLE.
- 7) PLUG-IN STARTING AID.
- 8) TRUE 90 DEGREE CUTOFF.
- 9) EXTERNAL STAINLESS STEEL BAIL LATCH.

APPROVED:

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AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS DIRECTOR

DATE

APPROVED:

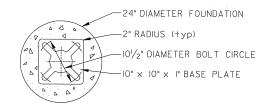
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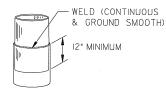
CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

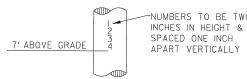
STREAMLINE STEEL POLE DETAILS

DETAIL T-651 SHEET LOF 2 REVISED 1998

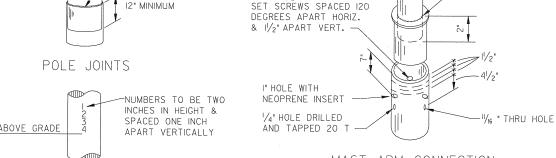


BASE PLATE SECTION



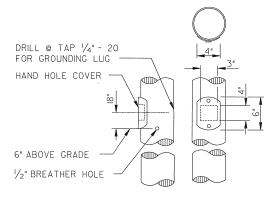


POLE NUMBER LOCATIONS

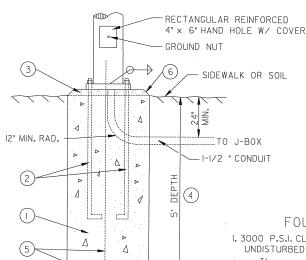


THREE 1/2" ALLEN HEAD

MAST ARM CONNECTION

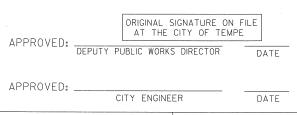


PENETRATIONS



FOUNDATION NOTES

- 1. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
- 2.4 $\frac{1}{8}$ " x 36" GALVANIZED ANCHOR BOLTS WITH LEVELING NUTS & WASHERS. TACK WELD NUTS TO WASHERS AND WASHERS TO BASE PLATE AFTER TIGHTENING. (21/2" PROJECTON)
- 3. 1/2" THICK EMBECO GROUT #636 OR APPROVED EQUAL.
- 4. UNSTABLE SOILS, AND/OR POLE HEIGHTS OVER 40', SHALL REQUIRE SPECIAL ENGINEERING.
- 5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED. IT SHALL BE CONNECTED TO POLE GROUNDING SCREW IN THE BASE OF THE POLE.
- 6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED, AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
- 7. THIS FOUNDATION MAY ALSO BE USED FOR DUAL MAST ARM POLES.



CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

FOUNDATION SECTION

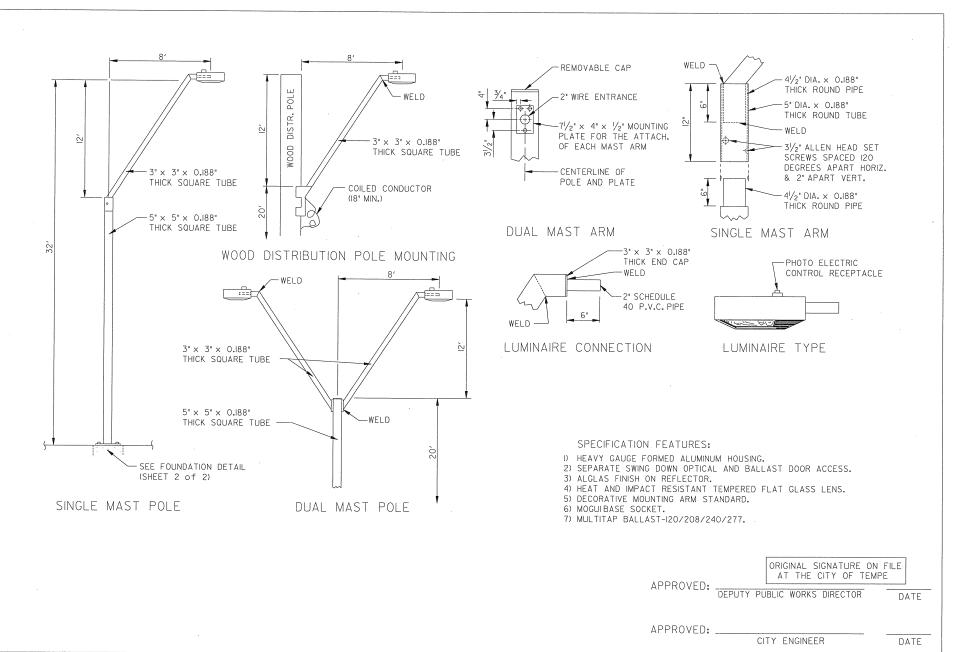
STREAMLINE STEEL POLE DETAILS

DETAIL T-651 SHEET 2 OF 2 REVISED 1999

4.5' or 6.5' CANTILEVER

MAST ARM

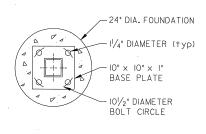
WELD

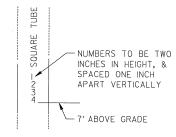


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ARCHITECTURAL STREET LIGHT

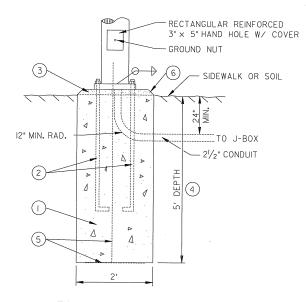
DETAIL T-652 SHEET LOF 2 REVISED 1998





BASE PLATE SECTION

POLE NUMBER LOCATIONS



FOUNDATION SECTION

GENERAL NOTES

- I. POLES ARE TO BE DESIGNED PER A.A.S.H.T.O. 80 SPECIFICATIONS.
- 2. ALL TUBING IS TO BE A.S.T.M. A500 GRADE B (46,000 P.S.I. MIN. YIELD).
- 3. ACCEPTED POLE MANUFACTURER: CEM-TEC CORPORATION OR APPROVED EQUAL.
- 4. ACCEPTED LUMINAIRE MANUFACTURER: AMERICAN ELECTRIC SERIES 153/154 OR G.E. DECASHIELD III, I OR APPROVED EQUAL.
- 5. FOR PAINT SPECIFICATIONS SEE TEMPE STREET LIGHTING SPECIFICATION T-101.2.

FOUNDATION NOTES

- I. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
- 2.4 1/8" x 36" GALVANIZED ANCHOR BOLTS WITH LEVELING NUTS & WASHERS, TACK WELD NUTS TO WASHERS AND WASHERS TO BASE PLATE AFTER TIGHTENING. (21/2" PROJECTON)
- 3. 1/2" THICK EMBECO GROUT #636 OR APPROVED EQUAL.
- 4. UNSTABLE SOILS, AND/OR POLE HEIGHTS OVER 40', SHALL REQUIRE SPECIAL ENGINEERING.
- 5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED, IT SHALL BE CONNECTED TO POLE GROUNDING SCREW IN THE BASE OF THE POLE.
- 6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED, AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
- 7. THIS FOUNDATION MAY ALSO BE USED FOR DUAL MAST ARM POLES.

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

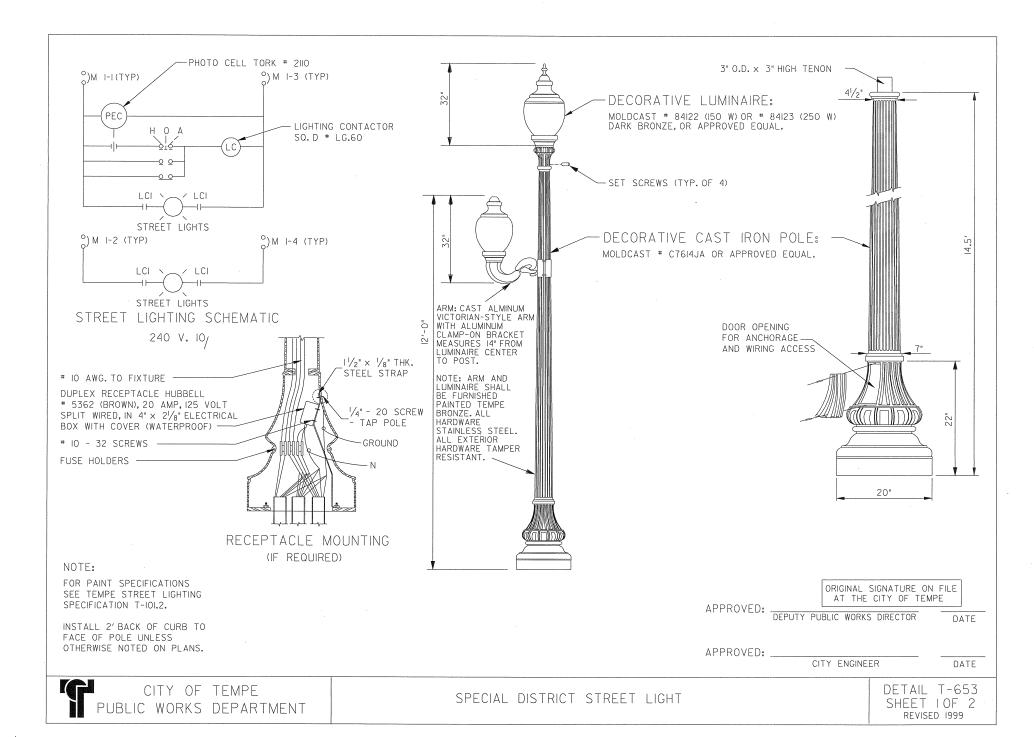
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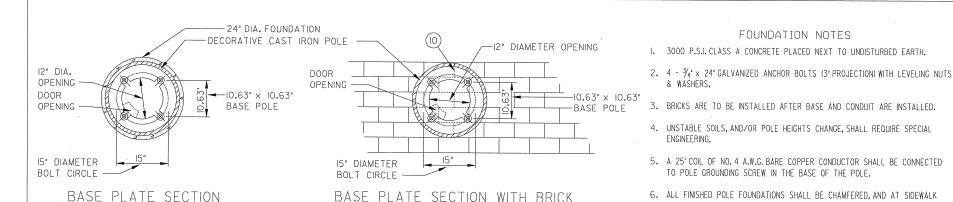
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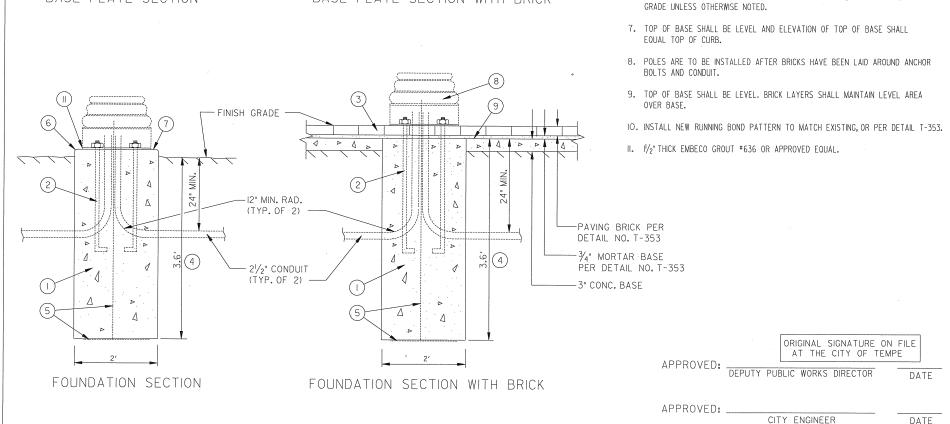
APPROVED: _

CITY ENGINEER

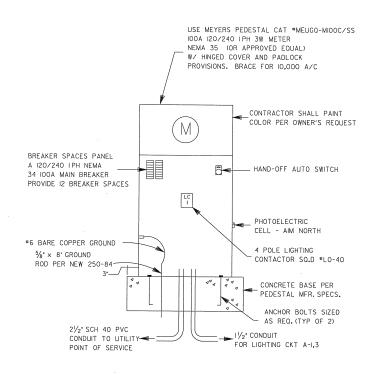








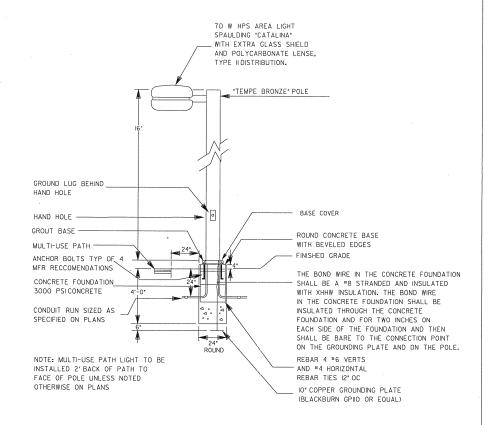
FOUNDATION NOTES



ELECTRICAL SERVICE - PEDESTAL DETAIL

MEYERS "MEUGLD/S-M200/TB-AZ-24 CKT

OR APPROVED EQUAL



MULTI-USE PATH LIGHT DETAIL

NOTE: MULTI-USE PATH LIGHTING WITHIN RIO SALADO OVERLAY DISTRICT SHALL FOLLOW THE RIO SALADO DESIGN GUIDELINES AND DETAILS

APPROVED:

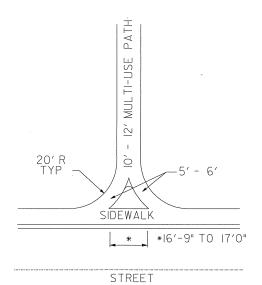
ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS MANAGER DATE TRANSPORTATION

APPROVED: ____

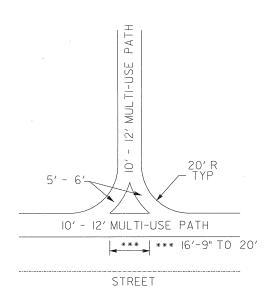
DEPUTY PUBLIC WORKS MANAGER CITY ENGINEER





12' MULTI-USE **7' R (5' S/W) 6' R (6' S/W) SIDEWALK STREET

> WING WIDTH 4" CURB = 4' WING 6" CURB = 6' WING 7" CURB = 7' WING



Example 'A' MULTI-USE PATH INTERSECTION AT STREET WITHOUT A CROSSING

Example 'B' MULTI-USE PATH INTERSECTION AT STREET WITH CROSSING

Example 'C' MULTI-USE PATH AT MULTI-USE PATH INTERSECTION

ORIGINAL SIGNATURE ON FILE AT THE CITY OF TEMPE

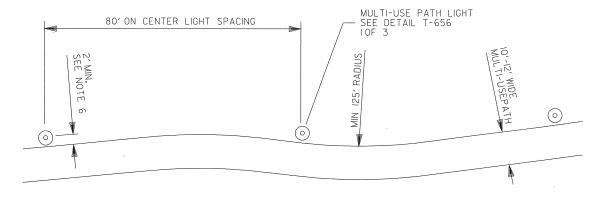
APPROVED: DEPUTY PUBLIC WORKS DIRECTOR

DATE

APPROVED: __

CITY ENGINEER





LIGHTING

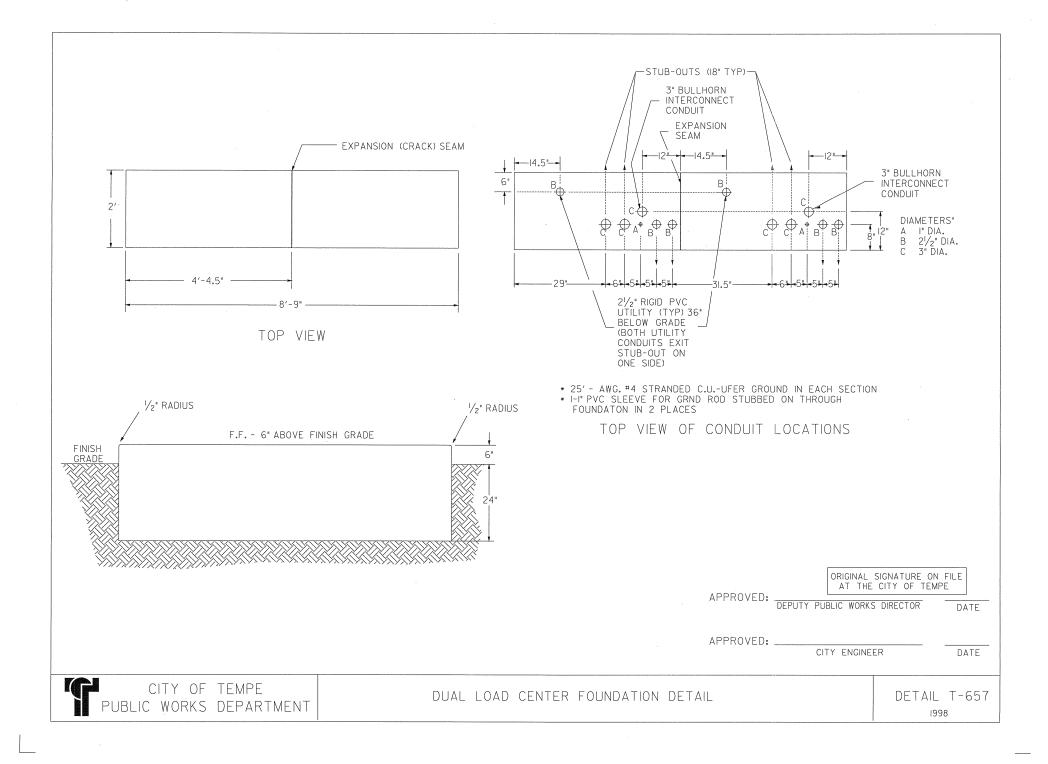
- I. LUMINAIRE FIXTURE SHALL BE SPAULDING "CATALINA" OR EQUAL.
- 2. LUMINAIRE SHALL BE 70 WATT HIGH PRESSURE SODIUM VAPOR, TYPE II DISTRIBUTION.
- 3. LUMINAIRE SHALL BE MOUNTED AT 16 FOOT MOUNTING HEIGHT ON POLES TO CONCRETE FOUNDATIONS PER MANUFACTURER'S SPECIFICATIONS.
- 4. POLES SHALL BE PLACED AT 80 FEET ON CENTER.
- 5. PROVIDE I" CONDUIT SCHEDULE 40 FOR CONDUIT RUNS AND TO THE BASE OF THE POLE.
- 6. POLES SHALL BE 2 FEET FROM THE EDGE OF THE MULTI-USE FACILITY TO THE FACE OF POLE UNLESS NOTED OTHERWISE ON PLANS.
- 7. LUMINAIRES SHALL BE WIRED FOR 120/240 VOLT APPLICATION.
- 8. LIGHTING SYSTEMS SHALL BE METERED USING MEYERS 100 AMP 120/240 SINGLE PHASE 3W METER PEDESTAL. THIS INCLUDES A HAND-OFF-AUTO SWITCH, PHOTO ELECTRIC CELL AIMED NORTH, AND A 4 POLE LIGHTING CONTACTOR SQ. D# LO-40.

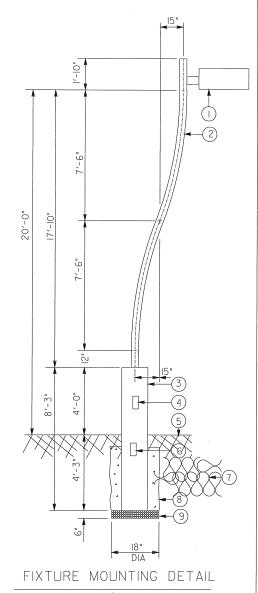
	RECOMMENDED MULTI-USE PATH DESIGN CRITERIA			
	DESIGN SPEED	20 MPH		
	MAXIMUM GRADE	5%		
	MINIMUM PATH WIDTH	IO FEET		
	RECOMMENDED PATH WIDTH	12 FEET		
*	MINIMUIM CURVE RADIUS	95 FEET		
*	RECOMMENDED CURVE RADIUS	125 FEET		
	HORIZONTAL CLEARANCE	2 FEET ON EACH SIDE		
		OF MULTI-USE FACILITY		
	VERTICAL CLEARANCE	8 FEET FOR ANYTHING OVER		
		MULTI-USE FACILITY		
	DIRECTIONAL DIVISIONS	MULTI-USE PATHS SHALL HAVE DIRECTIONAL		
		DIVISIONS AT INTERSECTIONS WITH A		
		STREET OR ANOTHER MULTI-USE PATH		

*CURVELINEAR MULTIUSE PATHS NOT DESIRABLE, BUT WHEN UNAVOIDABLE. THESE RADII APPLY.

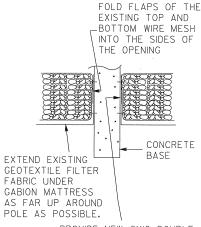
APPROVED:		ORIGINAL S AT THE	IGNATURE ON F CITY OF TEMPE	ILE
711 T TO V 201	DEPUTY PU	JBLIC WORKS	DIRECTOR	DATE
ADDDOVED				
APPROVED:	CI	TY ENGINEE	iR -	DATE







NOTE: THE 'HOLE' IN THE GABION MATTRESS WIRE MESH CANNOT BE CUTOUT AND REMOVED. THE GABION MATTRESS WIRE SHALL BE CUT IN SUCH A WAY THAT IT REMAINS AN INTEGRAL PART OF THE MATTRESS WIRE MESH SO THATIT CAN BE TURNED UP OR DOWN (BOTTOM OR TOP WIRE MESH) AND BE LACED AROUND THE VERTICAL EDGE OF THE OPENING WITH THE 'TURNED UP OR DOWN' MESH TO FORM A SECURE EDGING TO THE OPENING.



PROVIDE NEW 8XIO DOUBLE-TWISTED GAVANIZED WIRE MESH TO LINE THE PERIMETER OF THE OPENING. SECURE THE NEW MESH TO THE EXISTING TOP AND BOTTOM MESH WITH GALVANIZED LACING WIRE. NEW MESH AND LACING WIRE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-975.

OPENING IN GABION

NOTES:

- ① ISO WATT HIGH PRESSURE SODIUM AREA LIGHT WITH IES TYPE 2
 DISTRIBUTION AND SEGMENTED ALUMINUM REFLECTOR-EQUAL TO KIM CURVILINEAR
 CUTOFF #CCS25A/ISOHPS24O/CUSTOM/LS WITH GENERAL ELECTRIC #LUISO/55 LAMP.
 FURNISH FIXTURE AND ARM WITH BRUSHED ALUMINUM FINISH TO MATCH BRUSHED
 ALUMINUM FINISH OF POLE. FURNISH 4.5′ LONG ARM FOR FIXTURE MOUNTING.
- ② 5" ROUND NON-TAPERED ALUMINUM POLE WITH BRUSHED ALUMINUM FINISH. PROVIDE REMOVABLE ALUMINUM POLE TOP COVERPLATE. POLE MANUFACTURER TO BE RESPONSIBLE FOR THE ROLLING THE CURVES INDICATED ON THIS DRAWING. POLE MANUFACTURER TO COORDINATE MOUNTING DETAIL TO PRESTRESSED CONCRETE BASE WITH MANUFACTURER.
- ③ IO" DIAMETER ROUND NON-TAPERED PRESTRESSED COLORED CONCRETE BASE WITH EXPOSED AGGREGATE FINISH AND CLEAR GRAFFITICOATING. THE MANUFACTURER OF THE PRESTRESSED CONCRETE BASE SHALL SUBMIT SAMPLES OF TWO CEMENT COLORS AS FOLLOWS: COLOR #1: DAVIS PLUM, 2LB. #1395/94 LB. BAG CEMENT. COLOR #2:

DAVIS LIGHT GRAY, 1/2 LB. #8084/94 LB. BAG CEMENT. PROVIDE (6) 4X4 SAMPLES OF EACH COLOR AT TIME OF SHOP DRAWING REVIEW. PROVIDE ALL POLE MOUNTING DETAILS AND STRUCTURAL CALCULATION AT TIME OF SHOP DRAWING REVIEW.

(4) INSTALL A FLUSH MOUNTED HANDHOLE WITH TAMPERPROOF SCREWS LOCATED ON

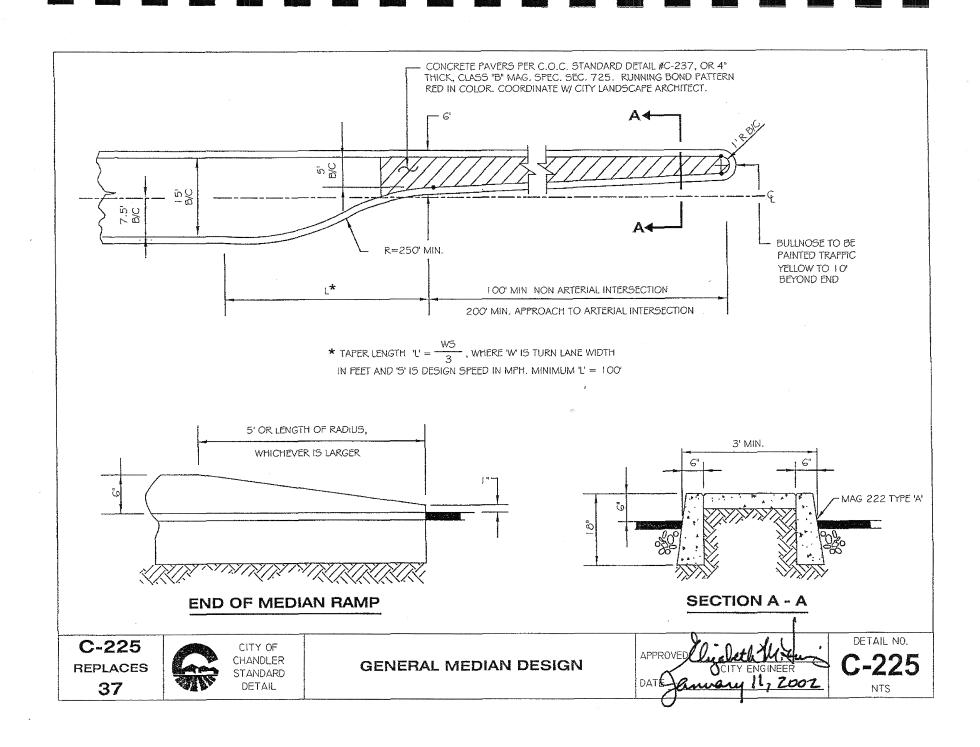
- (4) INSTALL A FLUSH MOUNTED HANDHOLE WITH TAMPERPROOF SCREWS LOCATED OF THE SIDE OPPOSITE THE BIKE PATH. PROVIDE A GROUND WIRE IN THIS HANDHOLE WHICH IS BONDED TO THE STRUCTURAL STEEL IN THE CONCRETE FOOTING.
- 5 FINISHED GRADE.
- (6) 4" WIDE X 8" HIGH APERTURE IN CONCRETE BASE FOR CONDUIT ENTRY. INSTALL THIS APERTURE ON THE SIDE FACING THE BIKE PATH.
- (7) WHEN "GABION" MATTRESS FLOOD CONTROL STRUCTURAL SYSTEM" EXISTS, MAKE REPAIRS TO THE GABION MATTRESS AS SHOWN IN DETAIL TO THE LEFT. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL POLES WITH THE CITY INSPECTOR PRIOR TO INSTALLING UNDERGROUND CONDUIT.
- (8) AFTER INSTALLING AND LEVELING THE PRESTRESSED CONCRETE FOOTING, BACKFILL THE HOLE WITH GROUT MIX OR "CEMENTIOUS EARTH" (A MIXTURE OF I PART PORTLAND CEMENT AND 15 PARTS WASHED SAND).
- (9) WASHED RIVER ROCK.

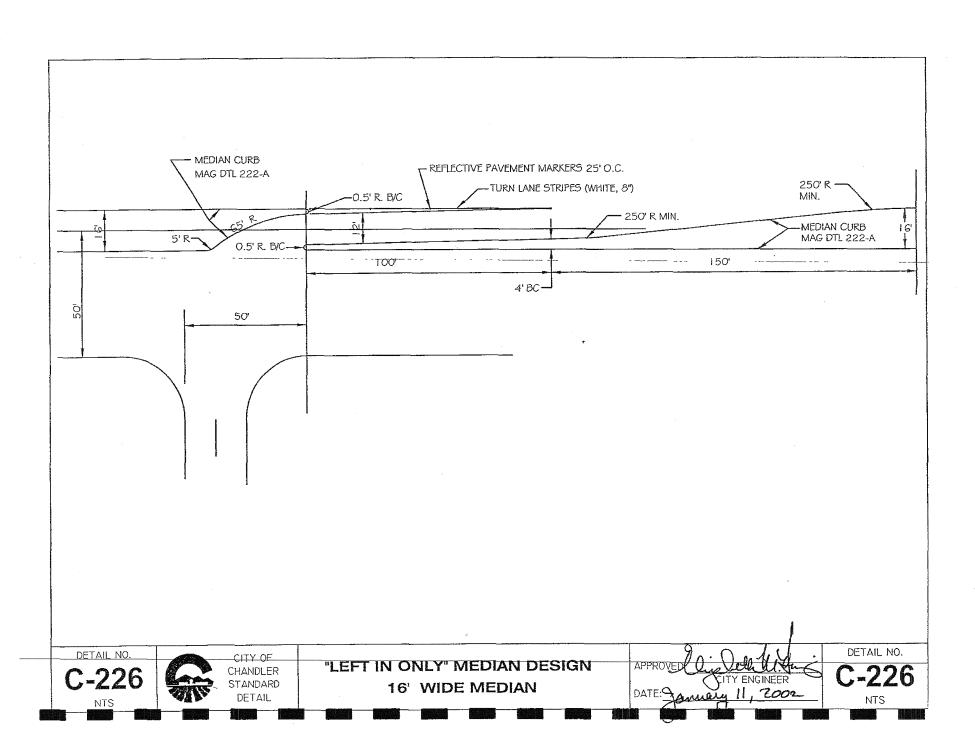
ADDOVED	ORIGINAL SIGNATURE ON FILE. AT THE CITY OF TEMPE			
APPROVED:	DEPUTY PUBLIC WORKS DIRECTOR	DATE		
APPROVED:	CITY ENGINEER	DATE		

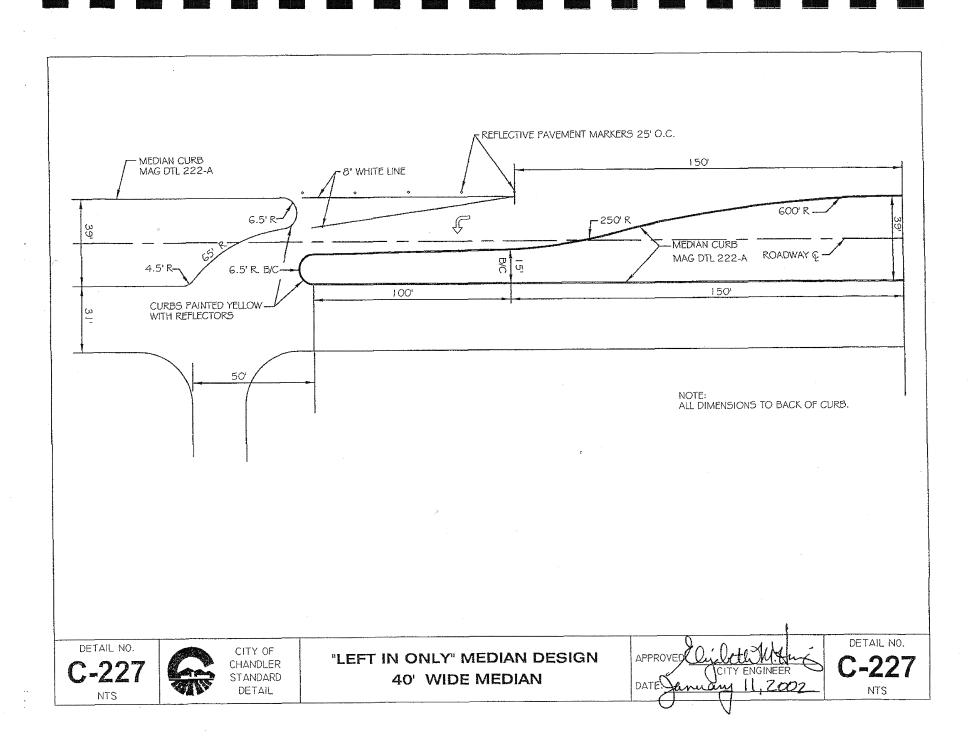


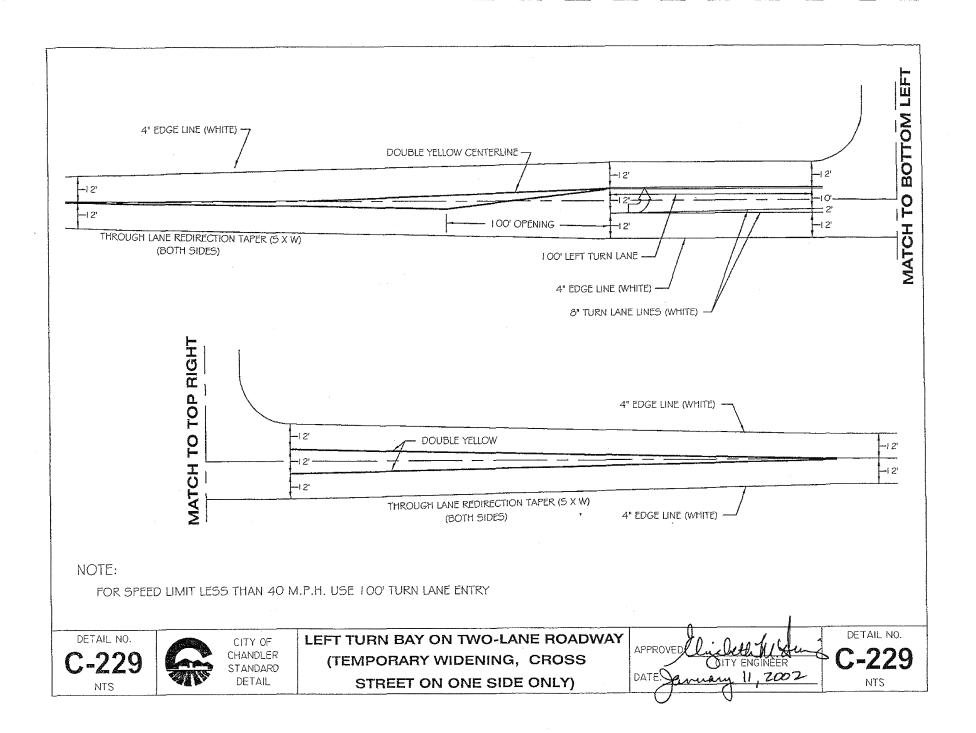
SPECIAL RIO SALADO MULTI-PATH LIGHTING FIXTURE

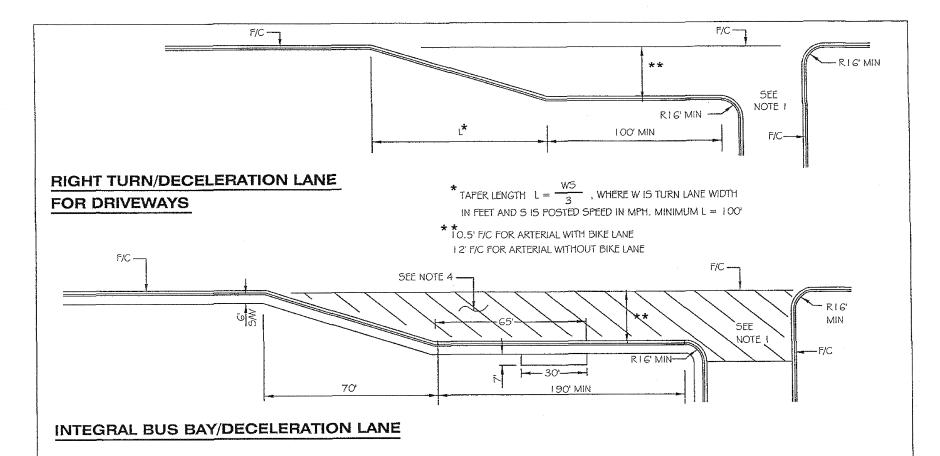
DETAIL T-658











NOTES:

- 1. USE MAG STANDARD DETAIL 250 OR 251 FOR ENTRANCE, CURB AND SIDEWALK CONFIGURATION. RECOMMENDED DRIVEWAY DIMENSIONS ARE SPECIFIED IN TECHNICAL DESIGN MANUAL NO. 4, TABLE 7.
- 2. MAINTAIN NORMAL CROWN THROUGHOUT ENTIRE CROSS-SECTION. A VALLEY GUTTER IS NOT ALLOWED BETWEEN THE THROUGH LANE AND THE RIGHT TURN/DECELERATION LANE, OR IN THE BUS BAY/DECELERATION LANE.
- 3. THE SIDEWALK IS TO BE CONSTRUCTED ADJACENT TO THE BACK OF CURB FOR THE ENTIRE LANE LENGTH, BUS BAY/DECELERATION LANE ONLY.
- 4. BUS BAY TO BE CONSTRUCTED OF 8" MINIMUM CLASS A CONCRETE, OVER 6" AB (MAG 725).

C-231 REPLACES 38



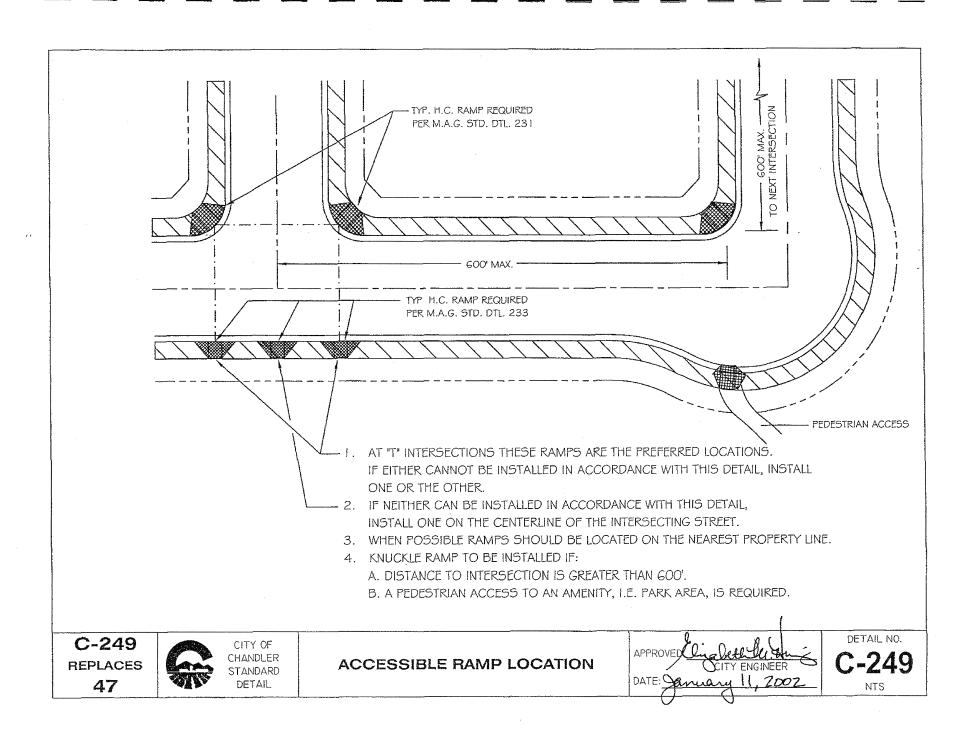
RIGHT TURN/DECELERATION LANE
FOR DRIVEWAYS

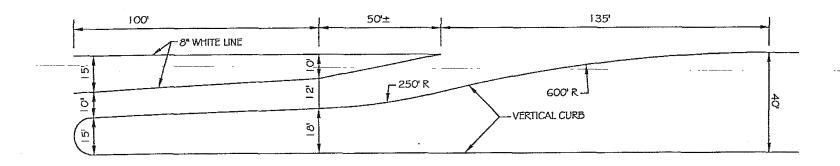
DATE Jamay 11, 2002

DETAIL NO.

C-231

NTS





ALL WIDTHS ARE TO FACE OF CURB OR CENTER OF LANE LINE

DETAIL NO.

C-250

NTS

CITY OF CHANDLER STANDARD DETAIL

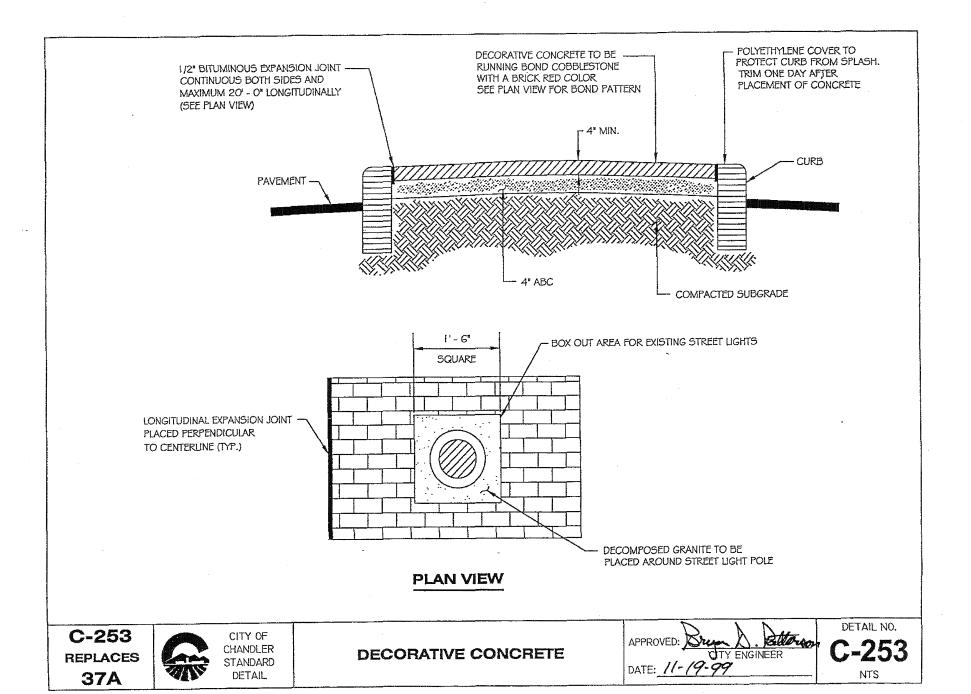
LEFT TURN BAY
IN 40' MEDIAN DESIGN

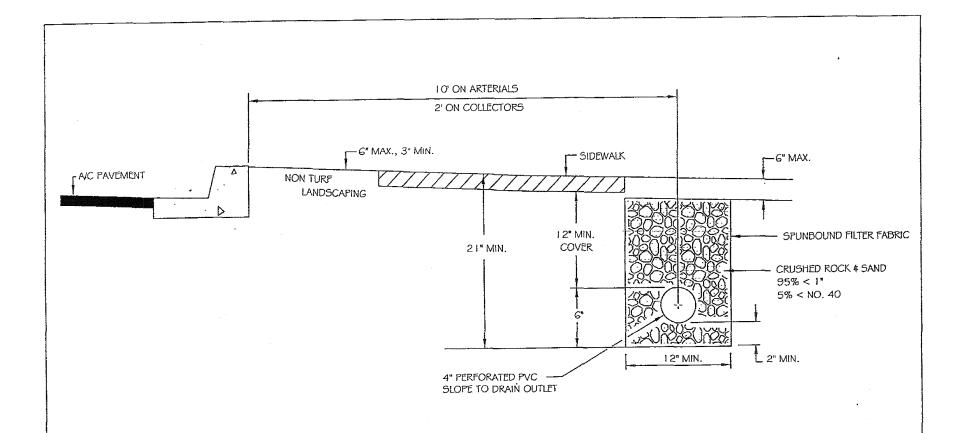
APPROVED: OTY ENGINEER

DATE: 11-19-99

DETAIL NO. **C-250**

NTS





NOTES:

I. THIS DETAIL APPLIES ONLY TO AREAS THAT ARE TURF LANDSCAPED.

CITY OF

CHANDLER

STANDARD

DETAIL

- 2. DRAIN MUST BE DESIGNED TO DISCHARGE TO RETENTION BASIN, STORM DRAIN OR DRYWELL.
- 3. MINIMUM SLOPE SHALL BE 0.2%.

C-254

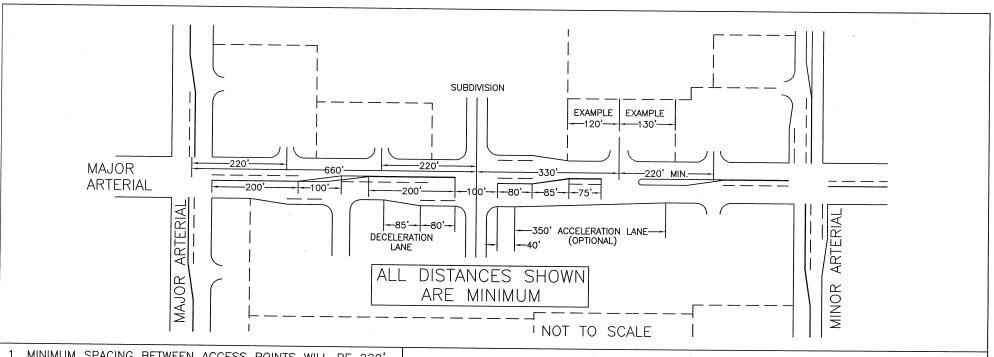


ARTERIAL/COLLECTOR
ROADWAY LANDSCAPE DRAINAGE

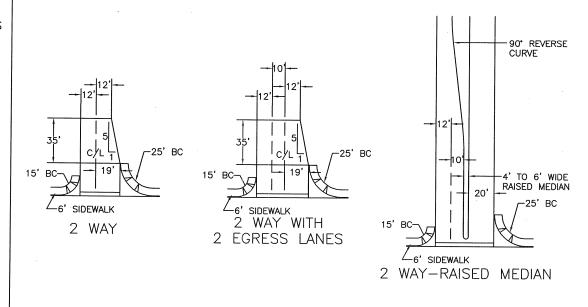
APPROVED: CITY ENGINEER
DATE: [1-19-99

C-254

NTS



- 1. MINIMUM SPACING BETWEEN ACCESS POINTS WILL BE 220' C/L TO C/L, 330' IS PREFERABLE.
- 2. ONE OR MORE PLANNED ADJOINING PROPERTIES WITH LESS THAN 220' FRONTAGE SHOULD HAVE ONE SHARED ACCESS POINT BETWEEN PROPERTIES.
- 3. IF EXISTING CONDITIONS MAKE 220' SPACING IMPOSSIBLE, 165' MAY BE ACCEPTED IN SPECIAL CASES ONLY.
- 4. PROPERTIES WITH GREATER THAN 330' FRONTAGE WILL BE REQUIRED TO HAVE A TRAFFIC STUDY DONE TO DETERMINE IF DECELERATION LANES ARE WARRANTED. STACKING WILL BE DETERMINED BY TRAFFIC STUDY. PROPERTIES WITH LESS THAN 330' FRONTAGE WILL BE HANDLED ON AN INDIVIDUAL BASIS.
- 5.PROPERTIES WITH GREATER THAN 1100' FRONTAGE MAY BE REQUIRED TO HAVE AN OPTIONAL ACCELERATION LANE.
- 6. MINIMUM SPACING OF ACCESS POINTS FROM INTERSECTION SHOULD BE 220' C/L TO C/L OR BE PLACED AT END OF PROPERTY FARTHEST FROM INTERSECTION. NO SHARED MEDIAN BREAK WITH 660' OF A MAJOR INTERSECTION, C/L TO C/L. ELSEWHERE, MEDIAN CUTS MAY BE PLACE AT A MINIMUM OF 330', BUT ARE TO BE HELD TO AN ABSOLUTE MAXIMUM OF EIGHT CUTS PER MILE.

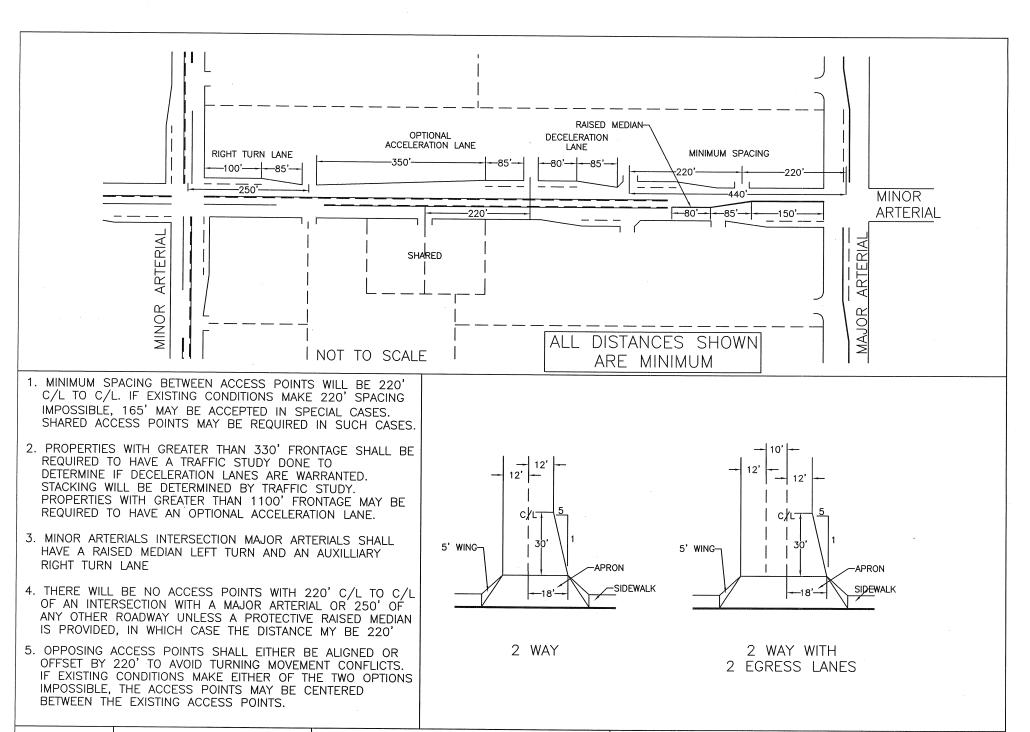


DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL ACCESS POINTS ON MAJOR ARTERIALS

REVISED 1/2005

DETAIL NO.

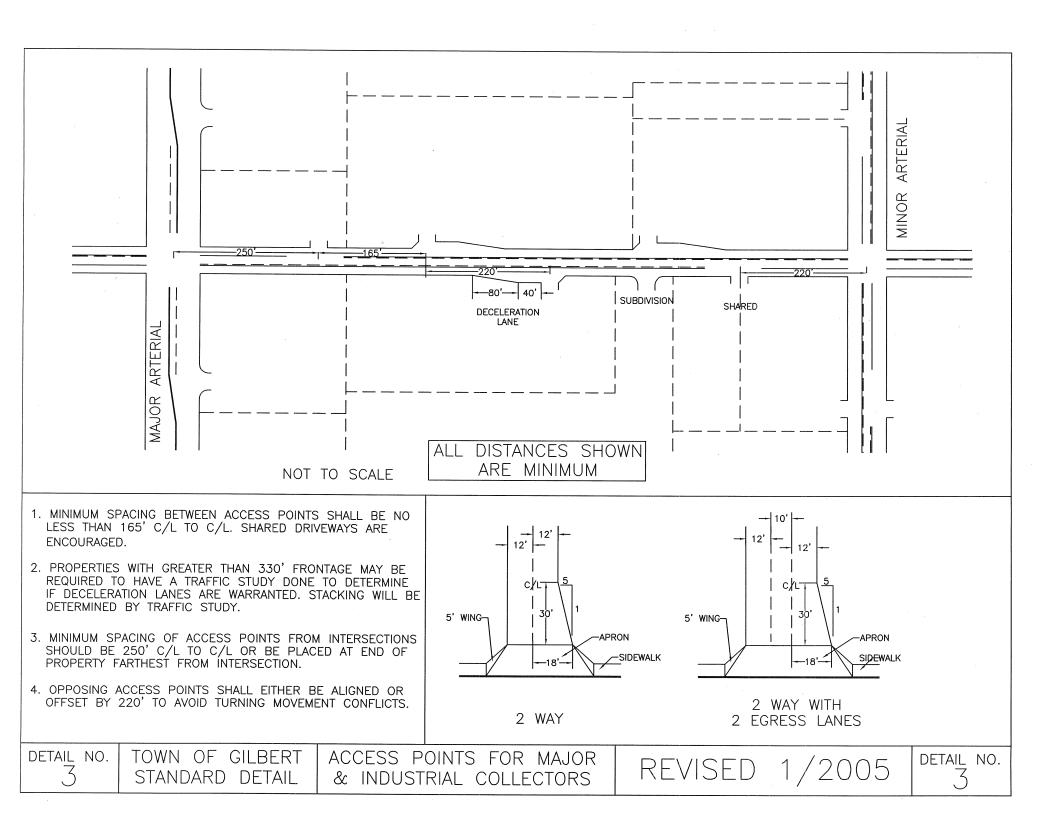


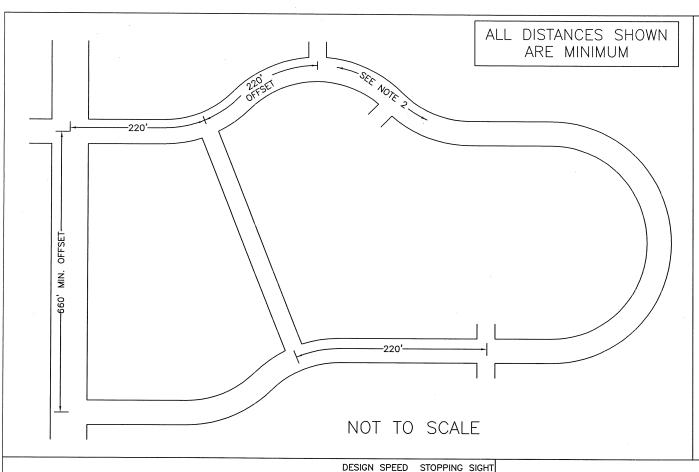
DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL ACCESS POINTS ON MINOR ARTERIALS

REVISED 1/2005

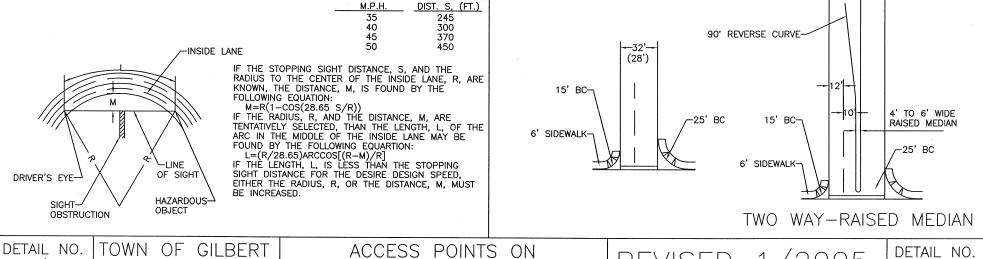
DETAIL NO.



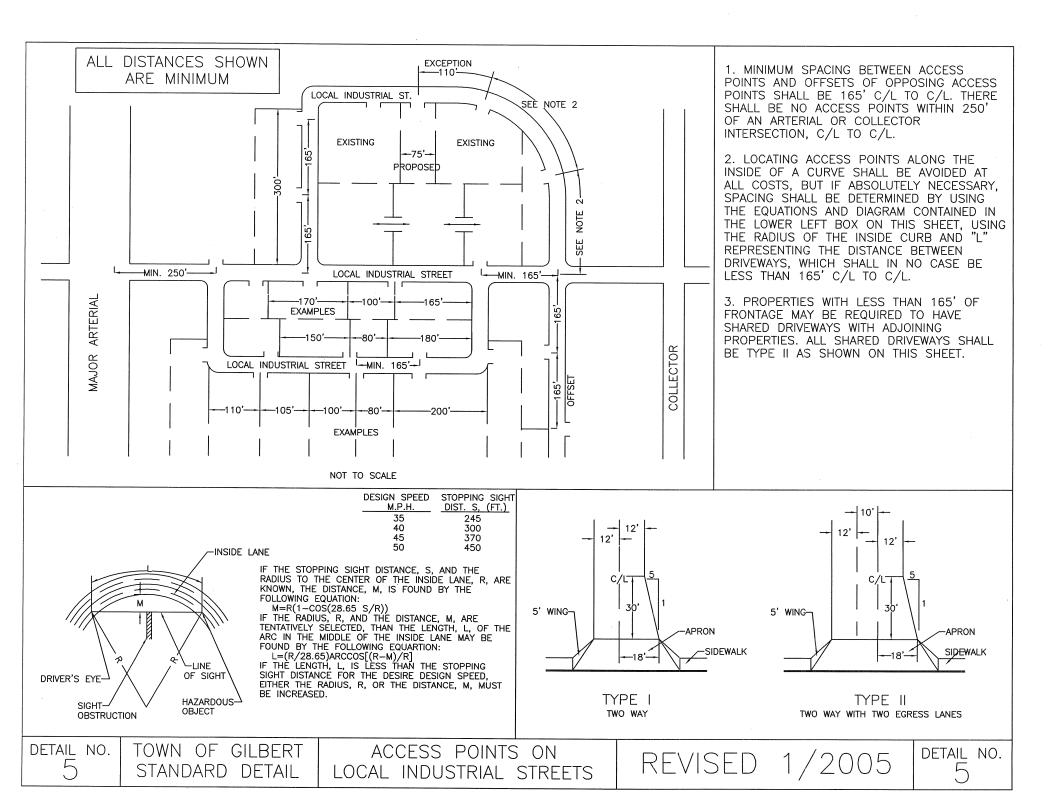


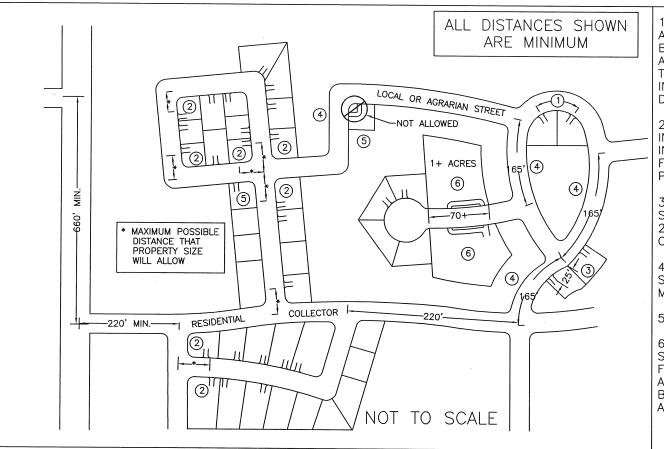
STANDARD DETAIL

- 1. THERE ARE <u>NO</u> DRIVEWAYS ON RESIDENTAIL COLLECTOR STREETS.
- 2. DISTANCES BETWEEN LOCAL STREET INTERSECTIONS SHALL BE A MINIMUM OF 220'. LOCATING LOCAL STREET INTERSECTIONS ALONG INSIDE CURVES SHALL BE AVOIDED AT ALL COSTS, BUT IF ABSOLUTELY NECESSARY, MAY BE DETERMINED BY USING THE EQUATIONS AND DIAGRAM IN THE BOTTOM LEFT BOX OF THIS SHEET, USING THE RADIUS OF THE INSIDE CURB AND "L" REPRESENTING THE DISTANCE BETWEEN STREETS OR A STREET AND AN OBSTACLE, WHICH DISTANCE SHALL NOT BE LESS THAN 220'.
- 3. IF EXISTING CONDITIONS MAKE 220' SPACING IMPOSSIBLE, 165' MY BE ACCEPTED IN SPECIAL CASES, BUT NEVER AROUND INSIDE CURVES.
- 4. COLLECTORS OR STREETS WHICH EXIT ON ARTERIAL OR OTHER COLLECTOR, WHETHER ON THE SAME OR OPPOSITE SIDES OF THE ROAD, WILL BE SEPARATED BY A MINIMUM OF 660', AND SHALL NOT BE LOCATED WITH 660' OF AN ARTERIAL INTERSECTION.

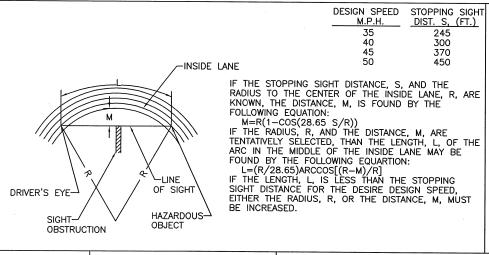


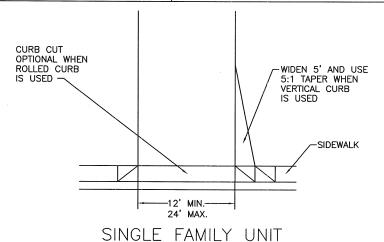
RESIDENTIAL COLLECTOR STREETS





- 1. MINIMUM SPACING BETWEEN ACCESS POINTS AND OBSTACLES ON INSIDE CURVES SHALL BE DETERMINED BY USING THE EQUATIONS AND DIAGRAM IN THE BOTTOM LEFT BOX ON THIS SHEET USING THE RADIUS OF THE INSIDE CURB AND "L" REPRESENTING THE DISTANCE BETWEEN DRIVEWAYS.
- 2. DRIVEWAYS LOCATED ON OR NEAR THE INSIDE CURVE OF A CORNER OR INTERSECTION WILL BE LOCATED AS FAR AWAY FROM THAT CORNER AS THE SIZE OF THE PROPERTY WILL ALLOW.
- 3. DRIVEWAYS LOCATED ON THE OPPOSITE SIDE OF A "T" INTERSECTION WILL BE OFFSET 25' FROM THE C/L OF THE "T" TO THE EDGE OF THE DRIVEWAY.
- 4. INTERSECTING OR CORNERED STREETS SHALL BE SEPARATED OR OFFSET BY A MINIMUM OF 165' C/L TO C/L.
- 5. STREET SHALL INTERSECT AT 90°.
- 6. ON LOTS OF GREATER THAN 1 ACRE IN SIZE AND WITH MORE THAN 70' OF FRONTAGE, CIRCULAR DRIVEWAYS WILL BE ALLOWED. CIRCULAR DRIVEWAYS WILL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES AROUND CORNERS.



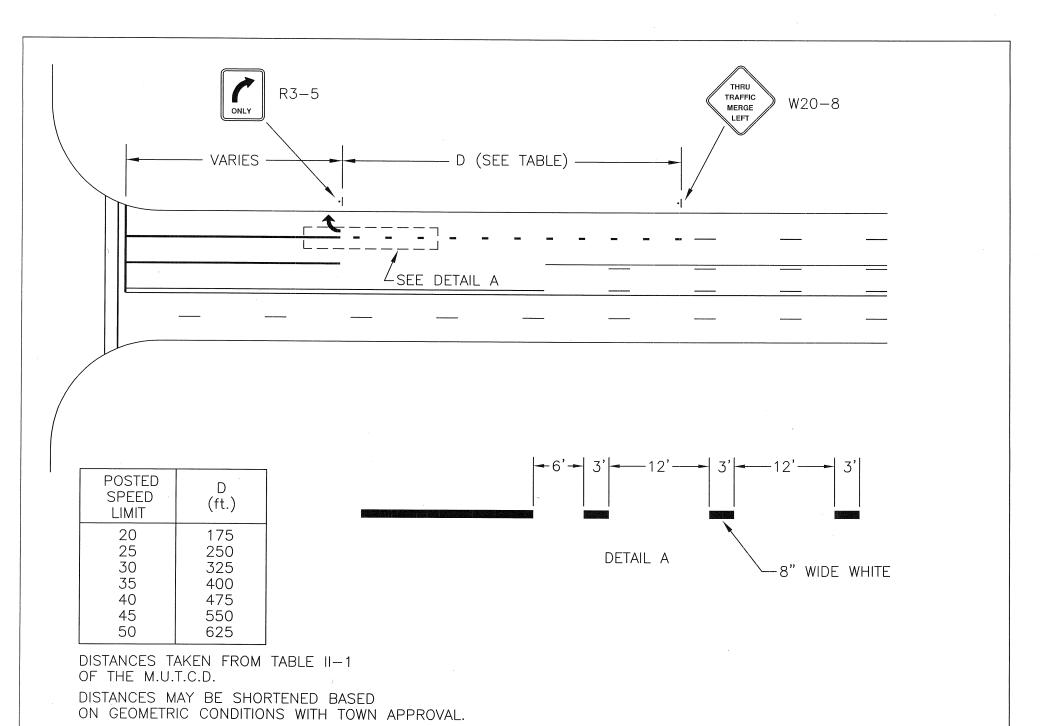


DETAIL NO.

TOWN OF GILBERT STANDARD DETAIL

ACCESS POINTS ON LOCAL & AGRARIAN STREETS

REVISED 1/2005



DETAIL NO. TOWN OF GILBERT STANDARD DETAIL

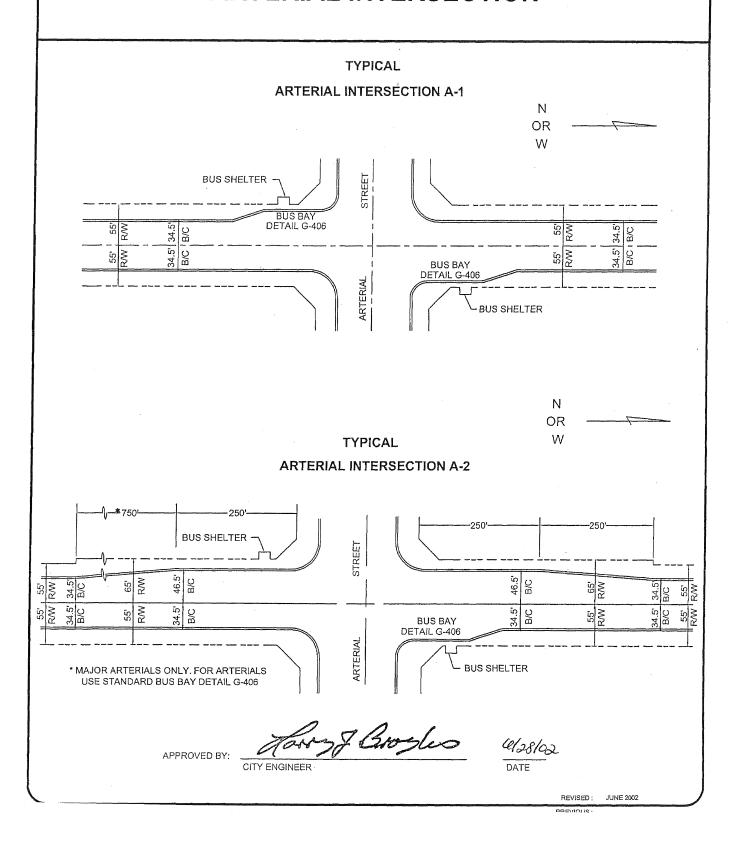
RIGHT LANE DROP

8/2/96

CITY OF GLENDALE ENGINEERING



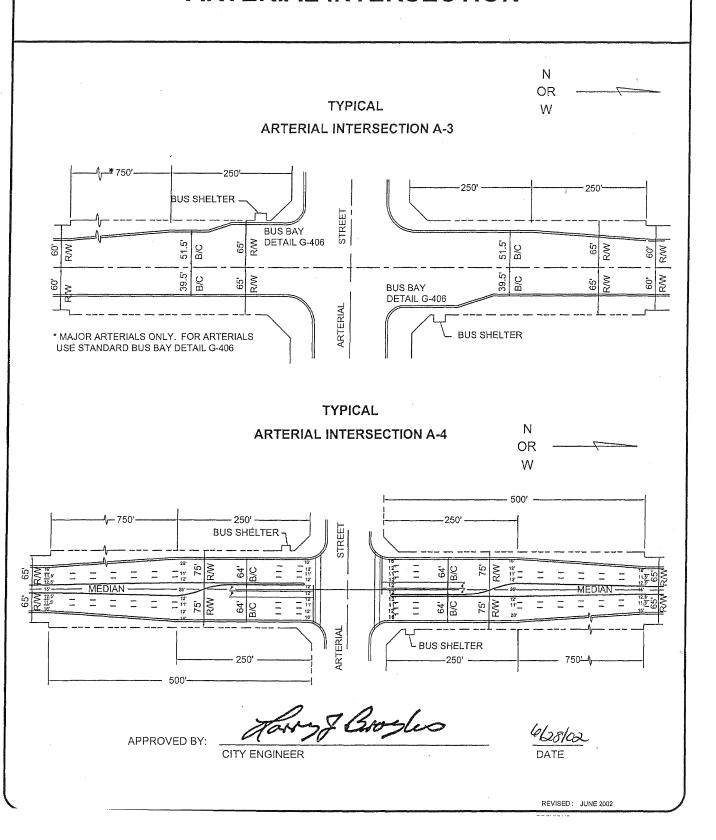
THROAT WIDENING FOR ARTERIAL INTERSECTION



CITY OF GLENDALE ENGINEERING



THROAT WIDENING FOR ARTERIAL INTERSECTION

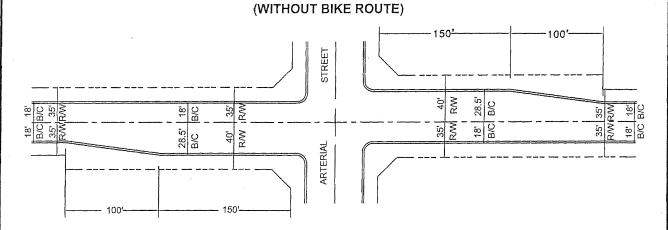


CITY OF GLENDALE ENGINEERING



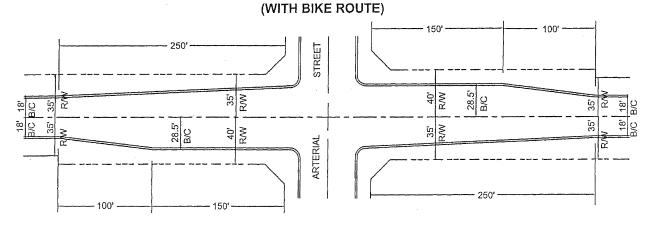
THROAT WIDENING FOR COLLECTOR INTERSECTING ARTERIAL

TYPICAL COLLECTOR INTERSECTING ARTERIAL SECTION C-1



TYPICAL COLLECTOR INTERSECTING ARTERIAL

SECTION C-1



APPROVED BY:

Torry Broslo

0/28/02

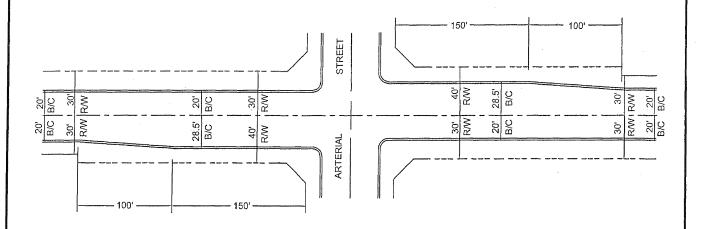
REVISED: JUNE 2002

CITY OF GLENDALE ENGINEERING

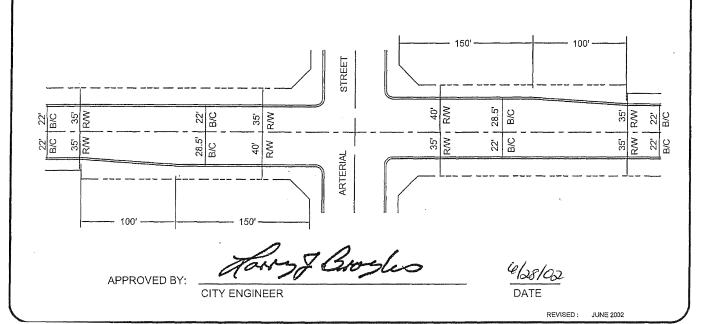


THROAT WIDENING FOR COLLECTOR INTERSECTING ARTERIAL

TYPICAL COLLECTOR INTERSECTING ARTERIAL SECTION C-2



TYPICAL COLLECTOR INTERSECTING ARTERIAL SECTION C-3

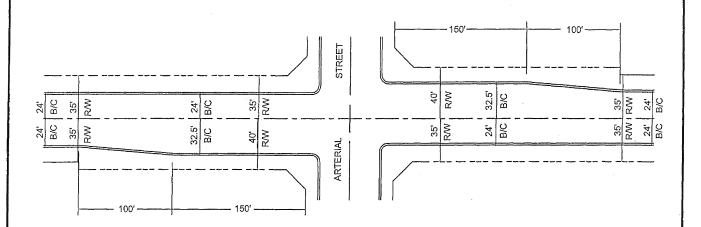


CITY OF GLENDALE ENGINEERING



THROAT WIDENING FOR COLLECTOR INTERSECTING ARTERIAL

TYPICAL COLLECTOR INTERSECTING ARTERIAL SECTION C-4



APPROVED BY:

CITY ENGINEER

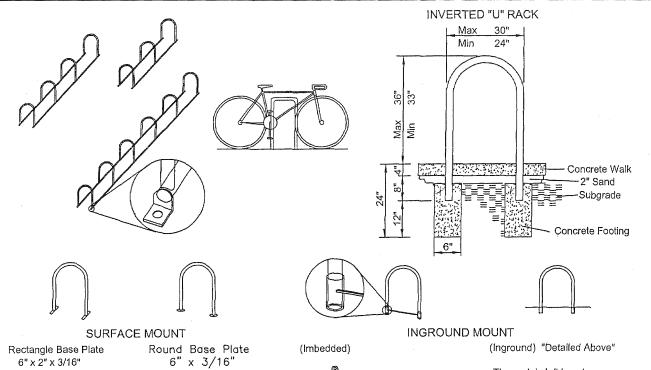
6/28/02 DATE

REVISED: JUNE 2002

CITY OF GLENDALE **TRANSPORTATION**



BICYCLE RACK



Drill four 1/2" dia. holes approx. 2" deep, then insert anchors & attach rack with bolts (bolts and anchors included).

Rectangle Base Plate

6" x 2" x 3/16"

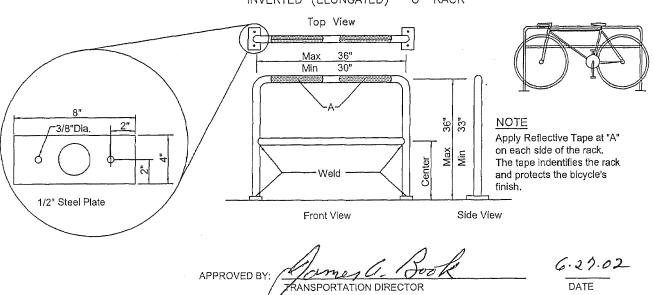
(Imbedded)

(Inground) "Detailed Above"

Bike rib[®]drops into sleeves imbedded in concrete, and is anchored with epoxy.

The rack is left long to accommodate core drill or below grade installation (4"-12").

INVERTED (ELONGATED) "U" RACK



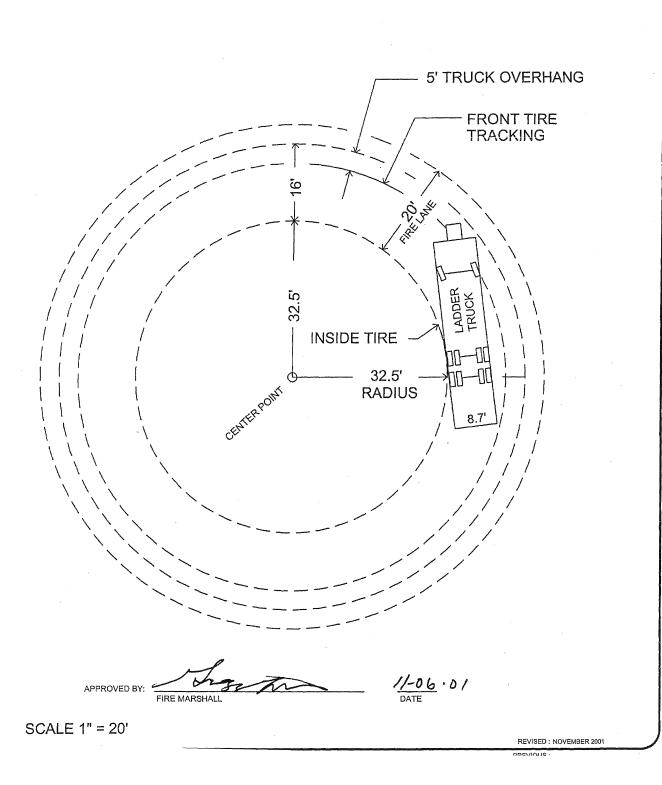
NOT TO SCALE

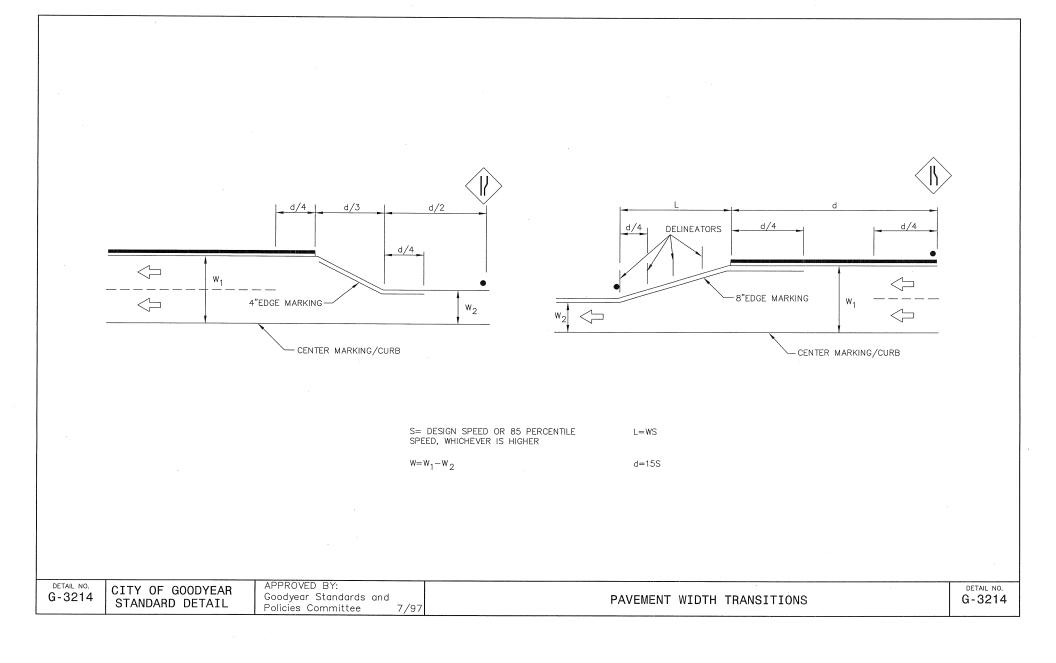
REVISED: JUNE 2002

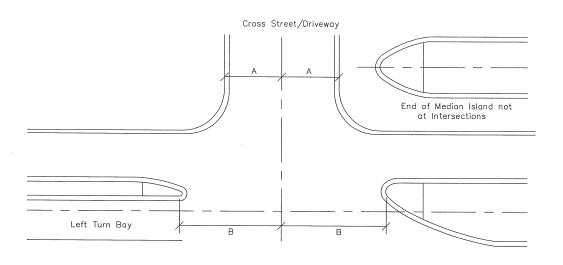
CITY OF GLENDALE FIRE



360° TURNING REQUIREMENTS FOR FIRE LADDER TRUCKS



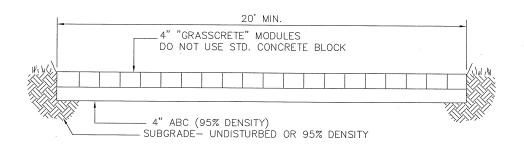


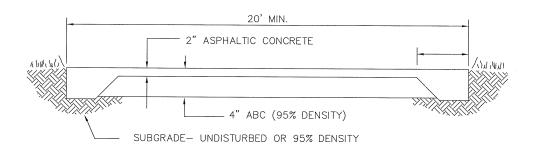


B = A + 14; 40' minimum

NOTES:

1. This sketch is for a three leg intersection. If the intersection has four legs, the right side will also have an auxiliary lane for left turns, and the median on the right side will have the same configuration as the one on the left side rotated 180 degrees.





NOTE:

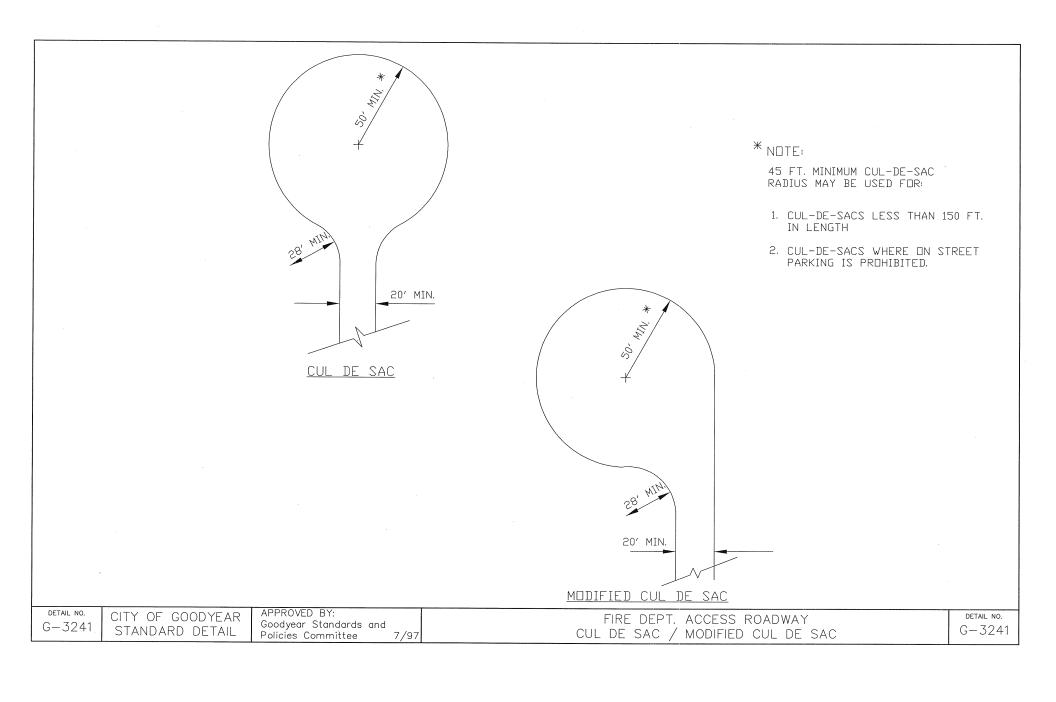
The maximum gradient of a fire department access road shall not exceed 8% (8 feet in 100 feet).

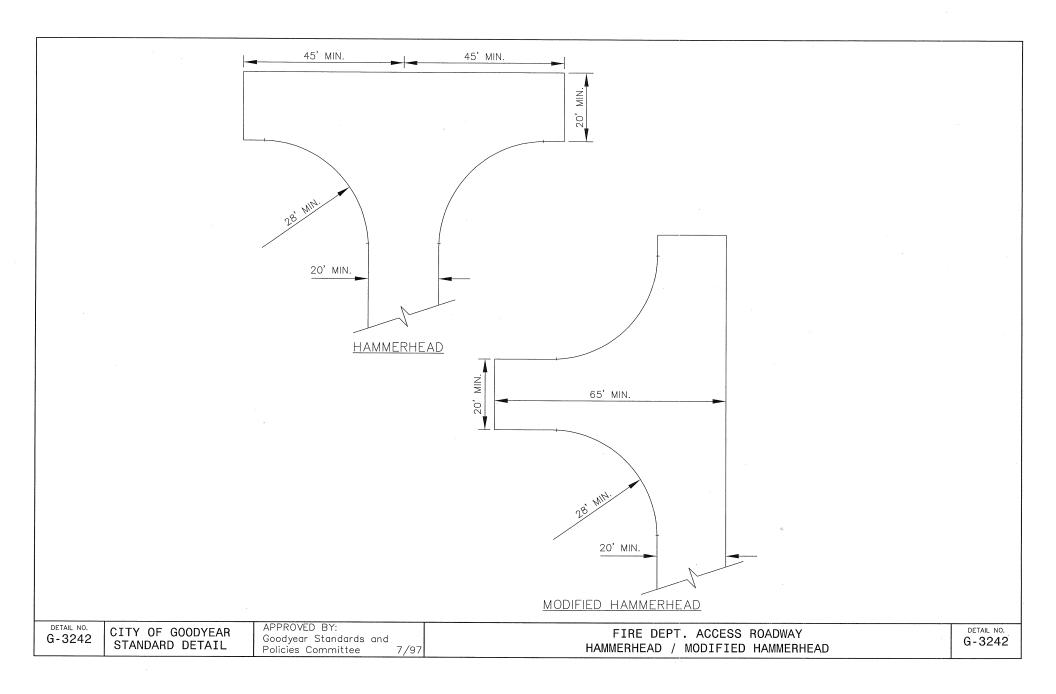
DETAIL NO.	
G-3240	

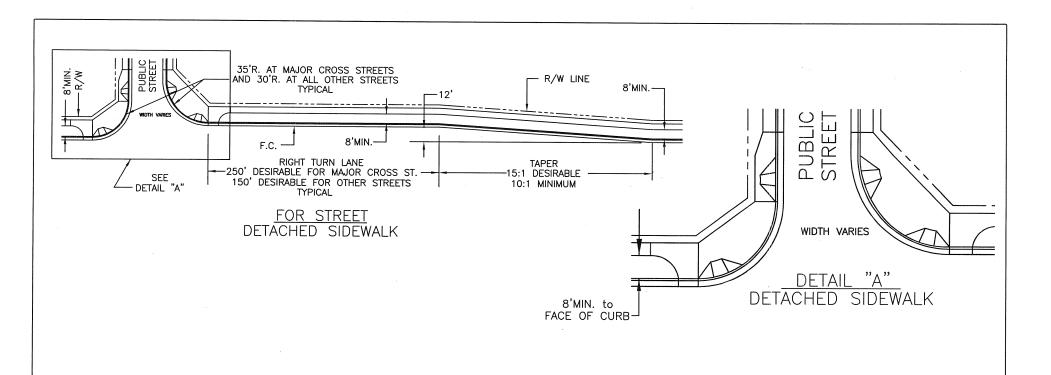
CITY OF GOODYEAR STANDARD DETAIL

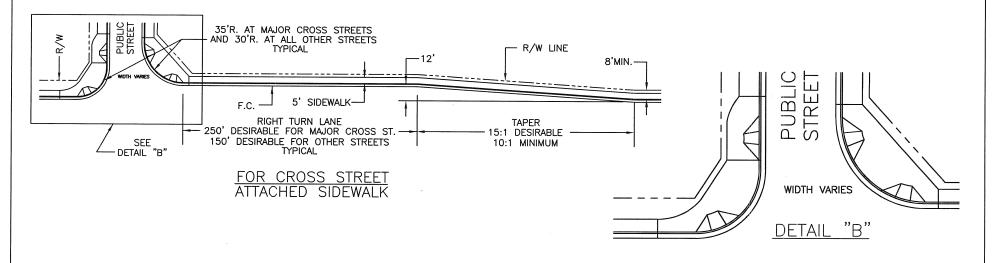
APPROVED BY: Goodyear Standards and Policies Committee 7/97

FIRE DEPT. ACCESS ROADWAY TYPICAL CROSS SECTION









DETAIL NO.

P1016

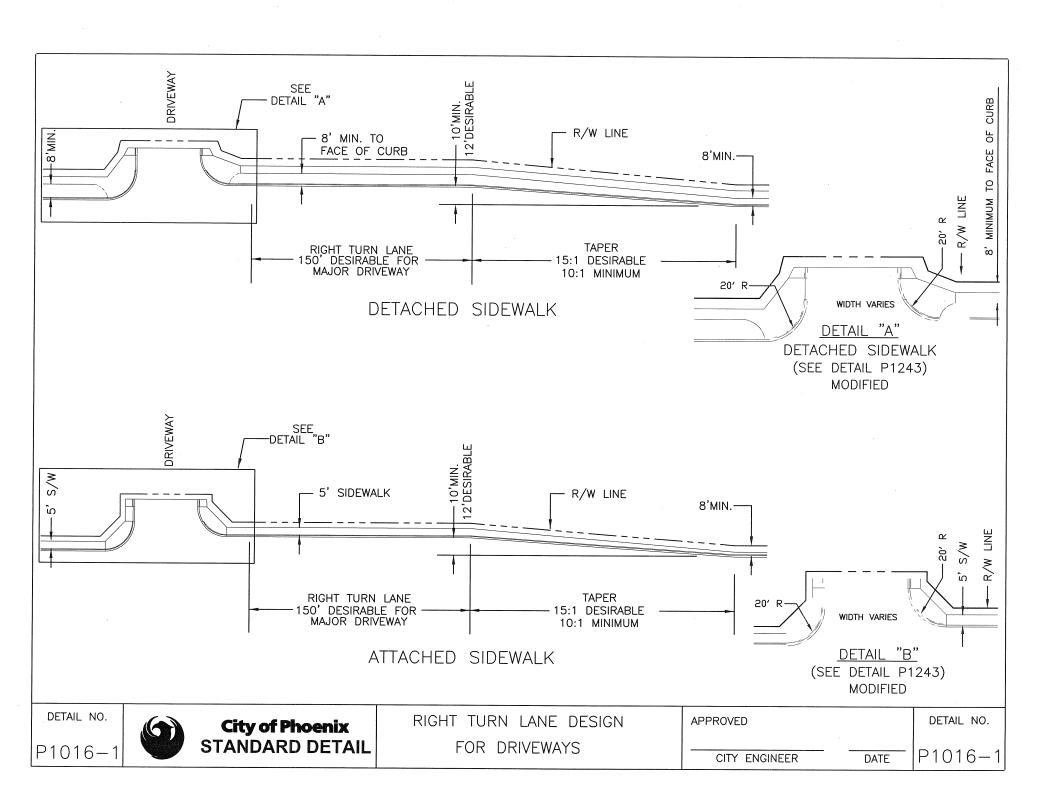
City of Phoenix STANDARD DETAIL RIGHT TURN LANE DESIGN FOR PUBLIC CROSS STREETS

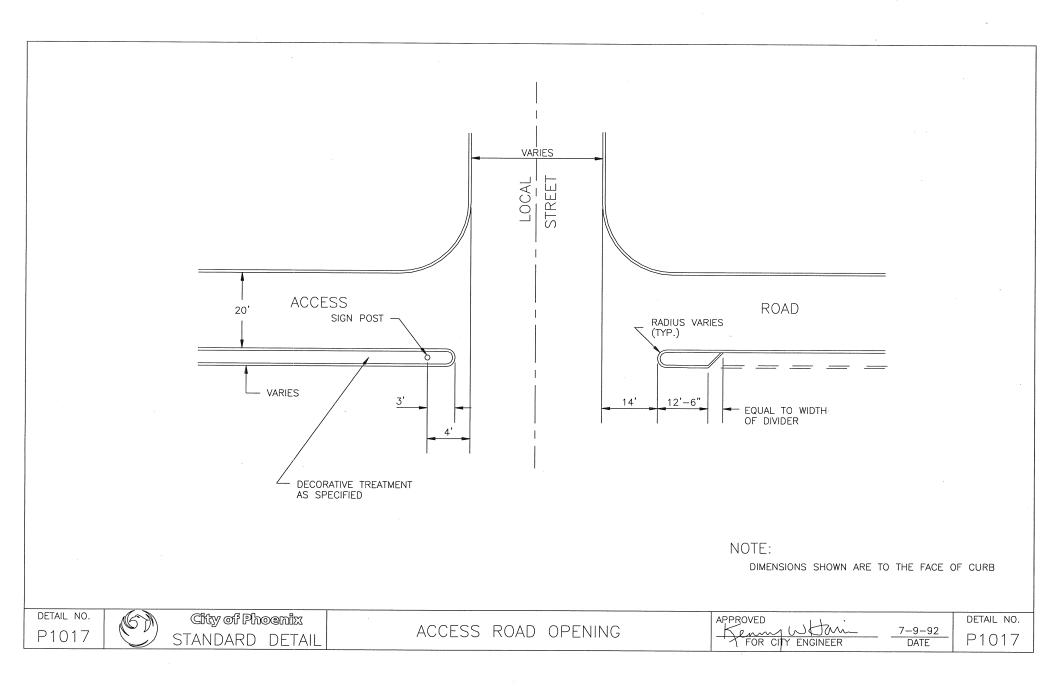
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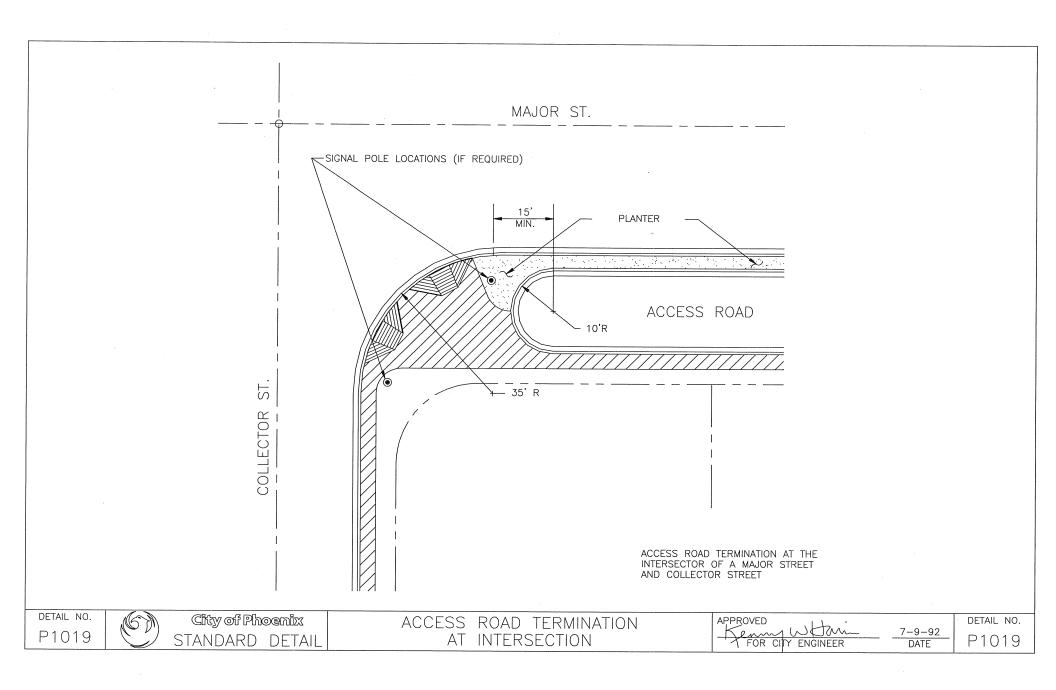
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DETAIL NO. 8-08-03

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A PRIVATE ACCESSWAY IS INTENDED TO APPLY TO PRIVATE STREETS WITHIN DEVELOPMENTS SUCH AS PRD'S PAD'S, MOBILE—HOME PARKS, AND HILL SIDE DEVELOPMENTS WHERE LOT SALES ARE PROPOSED.

- PRIVATE ACCESS WAYS WILL BE ALLOWED IN NEW DEVELOPMENTS WHERE THEIR USE IS LOGICALLY CONSISTENT WITH A DESIRE FOR NEIGHBORHOOD IDENTIFICATION AND CONTROL OF ACCESS, AND WHERE SPECIAL OVERALL DESIGN CONCEPTS MAY BE INVOLVED.
- 2. PRIVATE ACCESS WAYS WILL BE PERMITTED ONLY WHERE A SATISFACTORY MEANS OF PROVIDING FOR THEIR MAINTENANCE AND OPERATION IS DEMONSTRATED.
- THE USE OF PRIVATE ACCESS WAYS AS A DEVICE FOR PERMITTING INADEQUATE DESIGN WILL NOT BE ALLOWED.
- 4. THE USE OF PRIVATE ACCESS WAYS IS ORDINARILY LIMITED TO CUL—DE—SACS AND TO LOCAL STREETS NOT CARRYING THROUGH TRAFFIC. NORMALLY COLLECTOR STREETS WILL BE PUBLIC. FURTHER, THERE WILL BE AN ADEQUATE INTERNAL CIRCULATION SYSTEM AND NO PROPERTY WILL BE LANDLOCKED BY A PRIVATE ROAD SYSTEM.
- 5. THE DESIGN OF ALL PRIVATE ACCESS WAYS SHALL BE REVIEWED AND APPROVED BY D.S.D. THE CONSTRUCTION SHALL BE INSPECTED BY D.S.D., WITH A STANDARD INSPECTION FEE TO BE PAID.
- 6. NOTE TO BE PLACED ON PLAT "PRIVATE ACCESS WAY, NOT DEDICATED FOR PUBLIC USE".
- THE HOMEOWNER'S ASSOCIATION CONSTITUTION AND BY-LAWS SHALL INCLUDE ACKNOWLEDGEMENT
 OF THE OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF THESE PRIVATE FACILITIES, INCLUDING
 RESPONSIBLITY FOR ENFORCEMENT OF TRAFFIC CONTROL.
- 8. GATED ENTRIES ARE ALLOWED IF TURNAROUND AREAS ARE PROVIDED PER DSD GATED ENTRY DETAILS

I GENERAL

- PRIVATE ACCESS WAYS, AND/OR REFUSE COLLECTION EASEMENTS MAY BE USED IN PAD'S, MOBILE—HOME DEVELOPMENTS AND PRD'S AND SHALL BE KNOWN AS "PRIVATE ACCESS WAYS". UTILITIES MAY BE PLACED IN A PRIVATE ACCESS WAY IF THEY ARE AT LEAST 28' WIDE.
- 2. MAJOR DRAINAGE WAYS SHALL BE DEDICATED.
- 3. SIDEWALKS ARE NORMALLY REQUIRED ADJACENT TO ALL COLLECTOR STREETS AND IN ALL MULTIFAMILY DEVELOPMENTS AND DEVELOPMENTS WITH LOTS LESS THAN 18,000 SQ. FT. OR IN THE SAID EASEMENT RIGHT OF WAY UNLESS OTHER MEANS OF ACCOMMODATING PEDESTRIAN TRAFFIC ARE PROVIDED IN THE DEVELOPMENT.
- 4. PRIVATE ACCESS WAYS SHALL BE ADEQUATELY DESIGNED TO CITY SPECIFICATIONS TO PROVIDE FOR LANE DELINEATION, STREET SWEEPING, AND DRAINAGE CONTROL. NORMALLY, A CROWN SECTION WITH CONCRETE CURB OR CONCRETE CURB AND GUTTER ON BOTH SIDES WILL BE REQUIRED; HOWEVER, OTHER MEANS OF PROVIDING SIMILAR FUNCTIONAL CHARACTERISTICS MAY BE CONSIDERED IF APPROVED BY THE PLAN REVIEW TEAM.
- RETURN-TYPE DRIVEWAY ENTRANCE MAY BE USED ON PRIVATE ACCESS WAYS.
 IF THE STREET IS 28' OR GREATER DEPRESSED DRIVEWAY APPROACHES SHALL BE USED
 WHERE THERE IS ONLY DIRECT ACCESS TO A PARKING AREA OR WHERE THE STREET
 IS LESS THAN 28' WIDE.

II MINIMUM PAVEMENT WIDTHS

THE ENTIRE WIDTH OF THE PRIVATE ACCESS WAY SHALL BE DESIGNATED BY PLAT AS A "PRIVATE ACCESS WAY".

TRIVALE ACCESS WAT .		
STREET CLASSIFICATION	CURB TO CURB	CURB RETURNS
COLLECTOR	36'-40'	35'
LOCAL STREETS		
WITH PARKING PLANNED ON BOTH SIDES	29'-36'	20'
WITHOUT PLANNED PARKING	24'	25'
ONE-WAY, PLANNED PARKING ONE SIDE	22'-24'	25'

III GRADES

- DESIRABLE MAXIMUM 10%
- 2. MAXIMUM 15%
- MINIMUM 0.30% GRADES LESS THAN 0.30% SHALL REQUIRE CONCRETE VALLEY GUTTERS, ABSOLUTE MINIMUM GRADE 0.15%.

IV ALIGNMENT

- STREET SHALL NORMALLY INTERSECT AT RIGHT ANGLES AND NO GREATER DEFLECTION THAN 15' FROM A RIGHT ANGLE WILL BE ALLOWED AND SHALL HAVE AT LEAST 20' TANGENT ADJACENT TO INTERSECTIONS. THE TANGENT LENGTH SHALL BE INCREASED WHERE SHORT RADIUS CURVES ARE USED NEAR THE INTERSECTIONS.
- CUL-DE-SACS SHALL NOT ORDINARILY EXCEED 400' IN LENGTH. CURB RADIUS TO FACE OF CURB AT THE TURNAROUND SHALL BE 45' RADIUS MINIMUM.
- 3. IN SPECIAL SITUATIONS WHERE CITY REFUSE COLLECTION AND/OR CITY MAINTENANCE IS NOT REQUIRED, DEAD—ENDED PRIVATE ACCESS WAYS MAY BE: USED AND SHOULD NOT EXCEED 300 LINEAL FEET. ADEQUATE TURNAROUND FACILITIES MAY BE REQUIRED AT THE END OF EACH DEAD—ENDED PRIVATE ACCESS WAY FOR EMERGENCY VEHICLE TURNAROUND.
- 4. CENTERLINE RADIUS SHALL BE 100' MINIMUM FOR LOOP STREETS AND LOCAL STREETS OVER 800' IN LENGTH. WHERE RIGHT—ANGLED BENDS ARE USED IN THE STREET PATTERN IN LIEU OF THE MINIMUM RADII REQUIRED ABOVE, WIDENING SUFFICIENT TO ACCOMMODATE TRUCK—TURNING MOVEMENTS SHALL BE PROVIDED BY USE OF KNUCKLES OR OTHE APPROPRIATE MEANS.

V STRUCTURAL SECTION

THE MINIMUM STRUCTURAL DESIGN OF PAVING, CURB, GUTTER, AND SIDEWALK SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS.

VI UTIL<u>ITIES</u>

- 1. ADEQUATE PROVISIONS FOR PUBLIC UTILITIES SHALL BE MADE.
- 2. FIRE HYDRANTS SHALL BE LOCATED ON THE PUBLIC STREET AT THE ENTRANCE TO THE PRIVATE ACCESS WAYS AND ALONG PRIVATE ACCESS WAYS AS REQUIRED BY THE CITY OF PHOENIX WATER AND WATER SERVICES DEPARTMENT STANDARDS.
- STANDARDS OF CONSTRUCTION AND INSPECTIONS ON PRIVATE ACCOSS WAYS SHALL BE TO CITY OF PHOENIX STANDARDS AND SPECIFICATIONS.
- 4. COSTS OF MAINTENANCE AND REPAIRS OF PRIVATE ACCESS WAYS, LIGHTS, AND NON-PUBLICLY-OWNED UTILITIES ARE TO BE THE RESPONSIBILITY OF THE HOMEOWNER'S ASSOCIATION.
- 5. PUBLIC WATER AND SEWER LINES ARE ACCEPTABLE WITHIN 28' WIDE OR GREATER PRIVATE ACCESSWAYS. AN EXCLUSIVE EASEMENT FOR PUBLIC WATER & OR SEWER IS TO BE PROVIDED IF PRIVATE ACCESSWAYS ARE 24' WIDE.
- 6. SOME TYPE OF PRIVATE STREET LIGHTS ARE TO BE PROVIDED.

VII SIGNS

- A SIGN SHALL BE PLACED AT THE ENTRANCE TO EACH PRIVATE ACCESS WAY GIVING NOTICE THAT THE PRIVATE ACCESS WAY IS "PRIVATE PROPERTY" NOT DEDICATED FOR PUBLIC USE OR MAINTAINED BY THE CITY OF PHOENIX.
- A STOP SIGN SHALL BE POSTED AT ALL INTERSECTIONS OF PRIVATE ACCESS WAYS WITH PUBLIC STREETS. SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICED AND SHALL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.

DETAIL NO. P1020-1



City of Phoenix STANDARD DETAIL

PLANNED AREA DEVELOPMENT

APPROVED

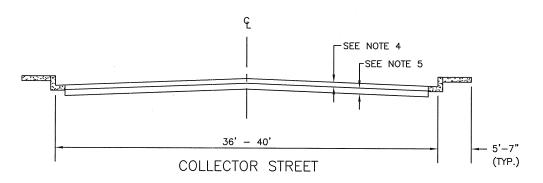
FOR CITY ENGINEER

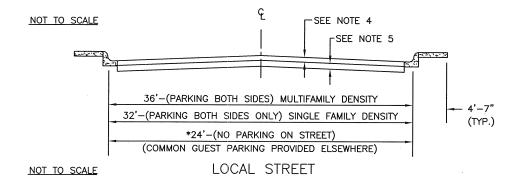
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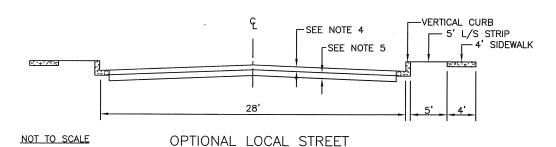
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DATE

P1020-1







NOTES:

- 1. DRIVEWAY ENTRANCE RETURNS—VERTICAL CURB FACE
 A. COLLECTOR STREET 35' RADIUS TO FACE OF CURB
 B. LOCAL STREET (36' OR 32' W) 20' RADIUS TO FACE OF CURB C. LOCAL STREET (24' OR 28' WIDE) 25' RADIUS TO FACE OF CURB
- 2. SIDEWALK-STD. DET. P1230. THE SITE DEVELOPMENT MANAGER MAY WAIVE THE REQUIREMENT FOR SIDEWALKS, IF SIDEWALKS PROVIDED ELSEWHERE IN THE DEVELOPMENT WILL SATISFACTORILY SERVE THE SAME PURPOSE.
- 3. CURBS
 - A. COLLECTOR STREET & MULTIFAMILY DENSITY STD. DET. 220 TYPE "A" (VERTICAL CURB AND GUTTER)
 - B. LOCAL STREET-STD. DET. 220 TYPE "C" (ROLL CURB AND GUTTER) OR STD. DET. 221 WHEN SIDEWALK IS ADJACENT, RIBBON CURBS WILL BE PERMITTED WHERE DRAINAGE WILL BE RETAINED OR ADEQUATE DRAINAGE CHANNELS ARE PROVIDED THROUGH ADJACENT PROPERTY. RIBBON CURB MAY NOT BE USED ADJACENT TO SIDEWALK.
- 4. ASPHALT CONCRETE-2" THICKNESS, CONFORM TO M.A.G. SECT. 321. OTHER TYPES OF SURFACE TREAT-MENT MAY BE PERMITTED BY AUTHORITY OF THE PAVING PLAN REVIEW SUPERVISOR AFTER DEMONSTRATION THAT STRUCTURAL STRENGTH IS EQUAL TO OR GREATER THAN THAT OF THE EXISTING CITY STANDARDS.
- AGGREGATE BASE COURSE-THICKNESS TO CONFORM WITH P1103. INSTALL TO CONFORM WITH M.A.G. SECT. 310.
- STREET FURNITURE, FIRE HYDRANTS AND MAJOR PLANTINGS SHALL BE SET BACK A MINIMUM OF 5' FROM THE BACK OF CURB AND BUILDINGS SHALL BE SET BACK A MINIMUM OF 10' FROM THE BACK OF CURB
- 7. GARAGES ARE TO BE SETBACK 18' FROM BACK OF SIDEWALK.
 - * SEE PHOENIX SUPPLEMENTS FOR ADDITIONAL DESIGN STANDARDS.

DETAIL NO.

P1020-



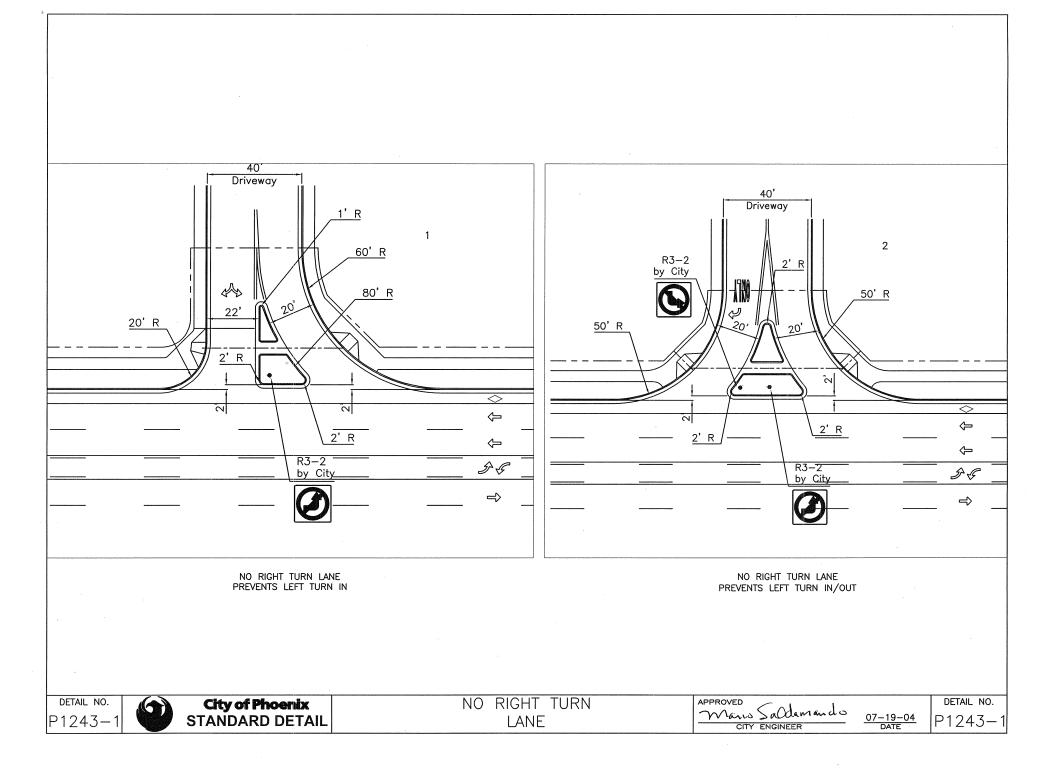
PRIVATE ACCESSWAY

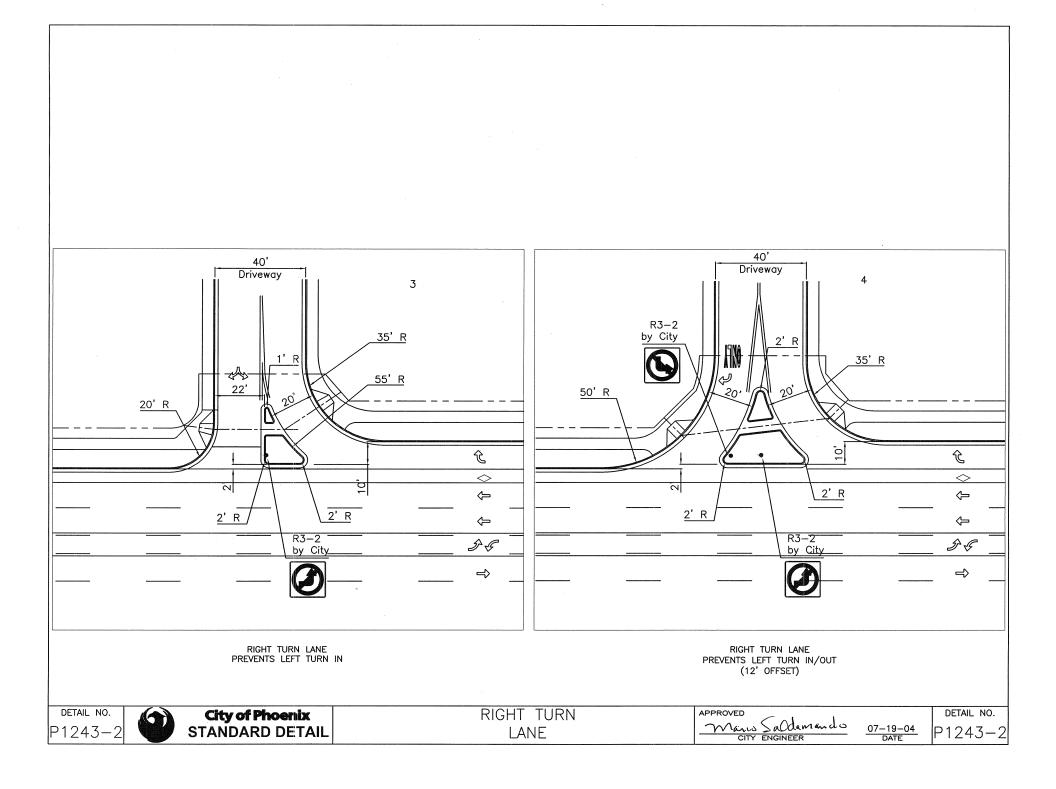
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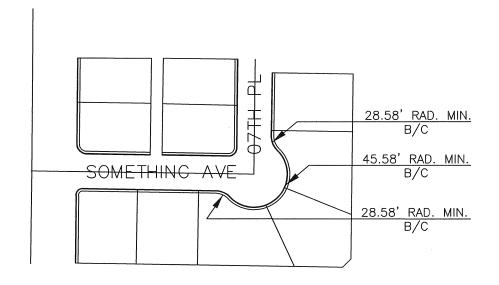
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GENERAL NOTES:

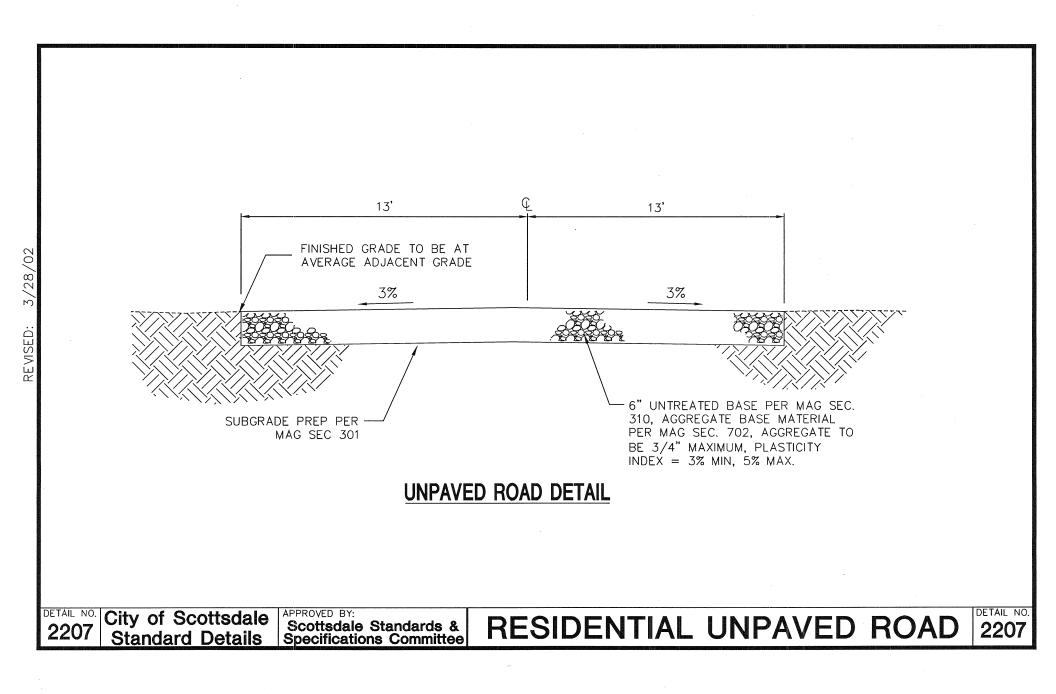
- 1. ALTERNATIVE KNUCKLE CONFIGURATIONS MAY BE USED, HOWEVER EACH DESIGN AND CONFIGURATION WILL BE REQUIRED TO DEMONSTRATE THAT THE KNUCKLE CAN BE SERVICED BY THE STANDARD SOLID WASTE COLLECTION VEHICLE. THE STANDARD SOLID WASTE COLLECTION VEHICLE IS A SINGLE UNIT VEHICLE WITH AN INSIDE TIRE RADIUS TRACK OF 28.4 FEET AND AN OUTSIDE REAR TIRE RADIUS TRACK OF 44 FEET. THE RIGHT SIDE OF THE COLLECTION VEHICLE SHOULD BE ABLE TO TRACK WITHIN TWO FEET OF THE SIDEWALK WITHOUT ENCROACHING UPON THE CURBING OR SIDEWALK. THE DETAIL FOR ALTERNATIVE KNUCKLE CONFIGURATIONS SHALL BE APPROVED BY THE SITE PLAN REVIEWER FOR THE PUBLIC WORKS DEPARTMENT, SOLID WASTE FIELD SERVICES.
- 2 KNUCKLES ARE NOT REQUIRED IF NO LOTS REQUIRING SANITATION PICKUP ARE PROPOSED ON THE OUTSIDE OF THE "ELBOW."

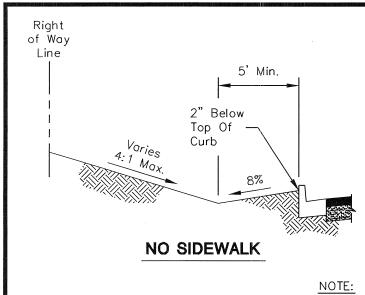
DETAIL NO. P1245



TYPICAL KNUCKLE CONFIGURATION

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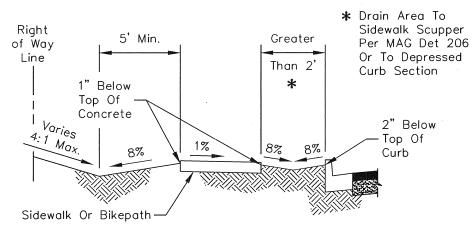




Runoff Shall Not Be Right Directed To Cross Over of Way The Top Of A Sidewalk. 5' Min. Line 1" Below Top Of Sidewalk Or Concrete Bikepath Varies 4:1 MOX. 1% 8%

Right of Way 5' Min. 2' Or Line Less 1" Below Top Of Concrete Varies 2" Below 4:1 MOX. Top Of 0% 8% Curb Sidewalk Or Bikepath

SIDEWALK LESS THAN 2' BEHIND CURB



SIDEWALK MORE THAN 2' BEHIND CURB

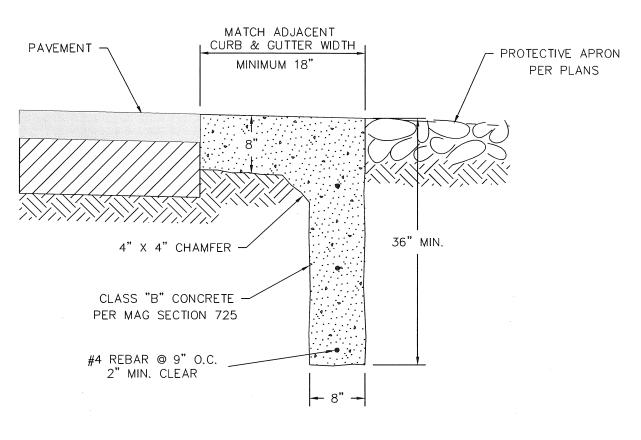
DETAIL NO. **2210**

City of Scottsdale Standard Details

SIDEWALK AT BACK OF CURB

APPROVED BY:
Scottsdale Standards &
Specifications Committee

GRADING BEHIND THE CURB

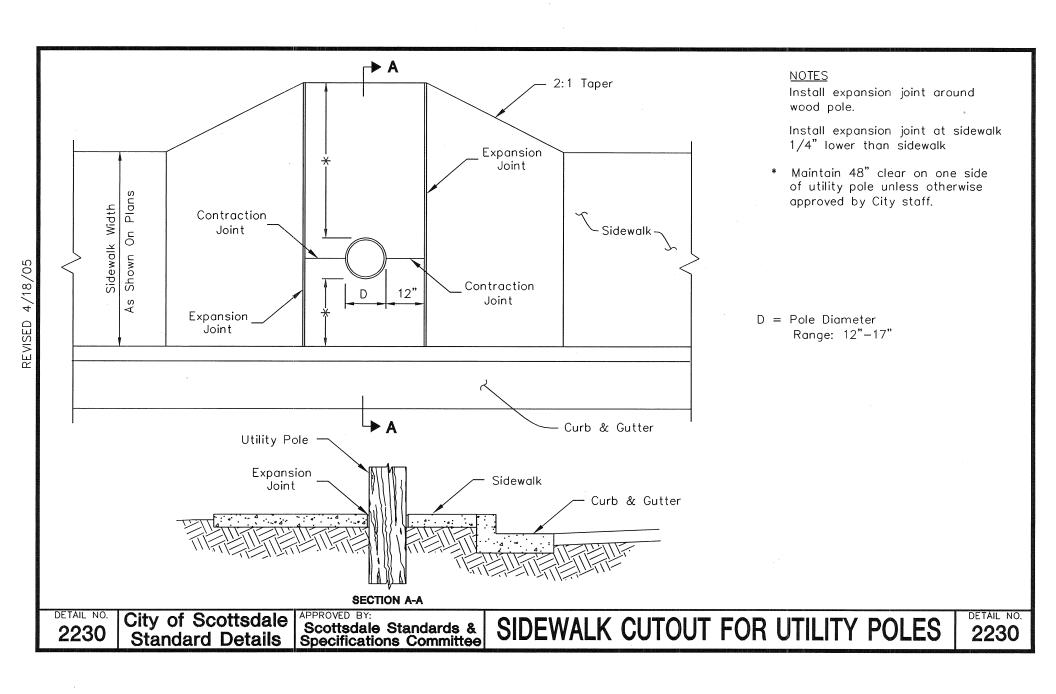


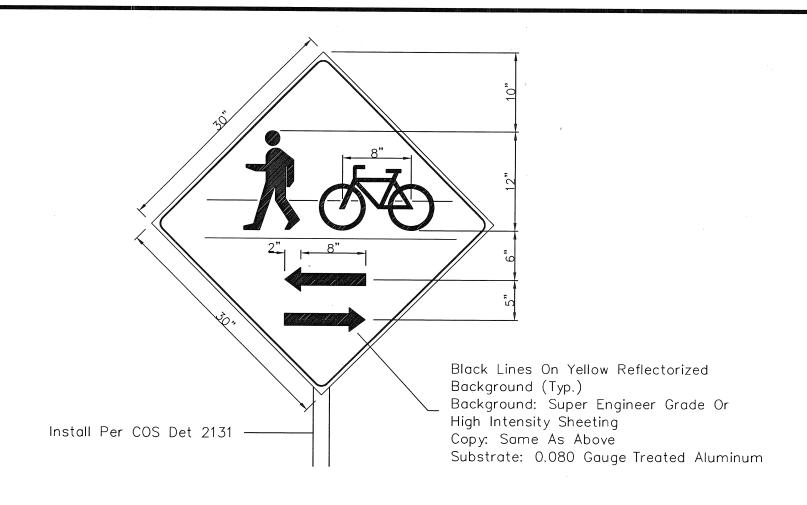
NOTE: Form The Top 8" Of Cut-Off Wall

DETAIL NO. 2228 City of Scottsdale Standard Details

APPROVED BY:
Scottsdale Standards &
Specifications Committee

CUT-OFF WALL



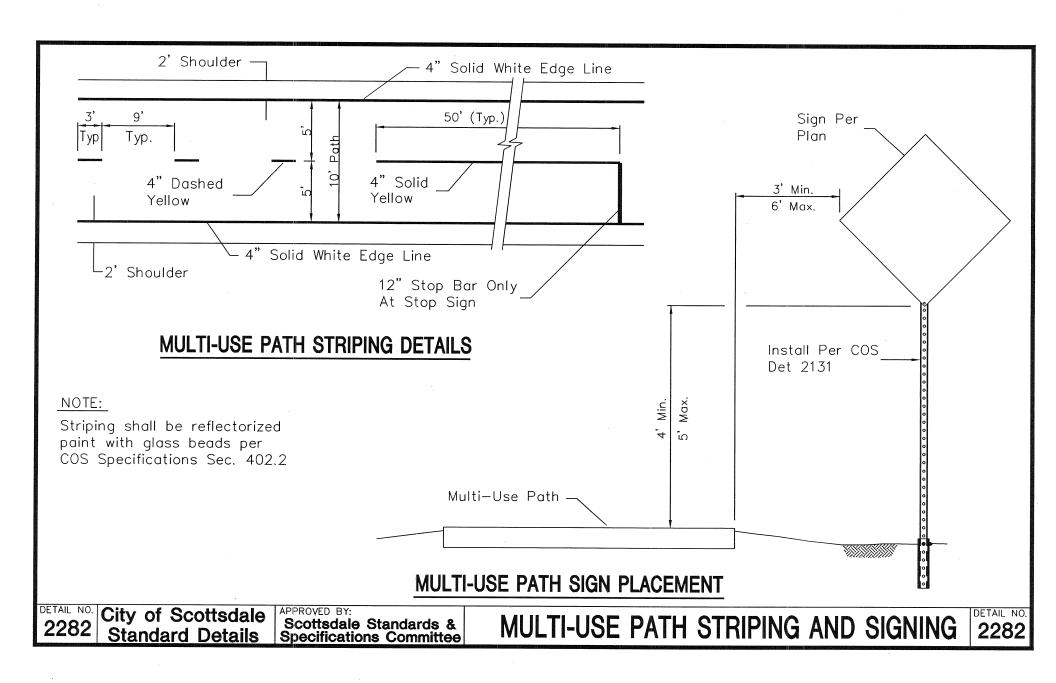


MULTI-USE PATH CROSSING SIGN

2281 City of Scottsdale Standard Details

APPROVED BY:
Scottsdale Standards &
Specifications Committee

MULTI-USE PATH CROSSING SIGN



MULTI-USE PATH WET AREA CROSSING

5" Concrete

5" Thick Concrete
Multi-Use Path Per
MAG Std Det 230
With Medium/Heavy
Broom Finish

Subgrade Of Disturbed
Area (95% Compaction)

SHOULDER DETAIL

Note: A 3' \times 3' Test Panel Shall Be Poured and the finish approved by COS Bicycle Staff At (480)312-7696.

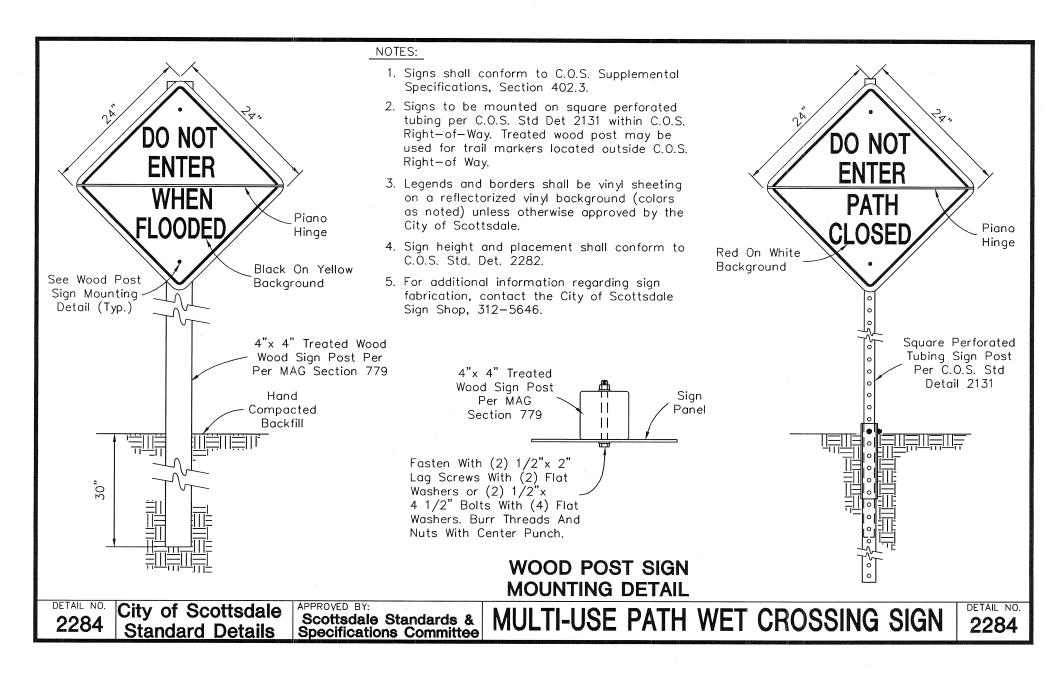
2283 City of Scottsdale Standard Details

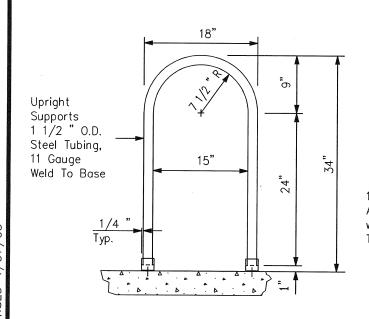
APPROVED BY:
Scottsdale Standards &
Specifications Committee

Cutoff Wall

MULTI-USE PATH DETAILS

2283



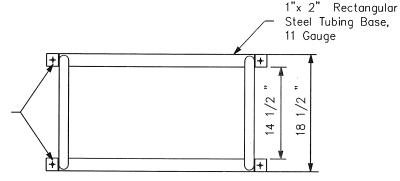


Walls Or Obstructions On Both Sides And Back. Front To Have A 6' Min. 1/8 "x 2"x 2"x 0'-2" 1"x 2" Rectangular Angle Anchor Brackets Steel Tubing Base, w/1/2 "Ø Hole. Weld 11 Gauge To Base. (4 Reg'd)

NOTES:

- 1. Double rack holds 4 bicycles.
- 2. Finish to be weather resistant, baked-on powder polymer coating.
- 3. Anchor rack to concrete w/3/8 $^{\circ}$ $^{\circ}$ wedge anchors and tamper resistant or welded nuts, (4 Req'd) or set tubing 12" below grade in 24" deep x 6" wide concrete footing.
- 4. Concrete base may be covered with turf or decomposed granité.
- 5. Placement of bicycle rack shall be convenient to main entrance and in a highly visible area.

1/8 "x 2"x 2"x 0'-2" Angle Anchor Brackets $\frac{1}{2}$ % Hole. Weld To Base. (4 Reg'd)



31"

28"

2' Min. Clearance From

Clear Area.

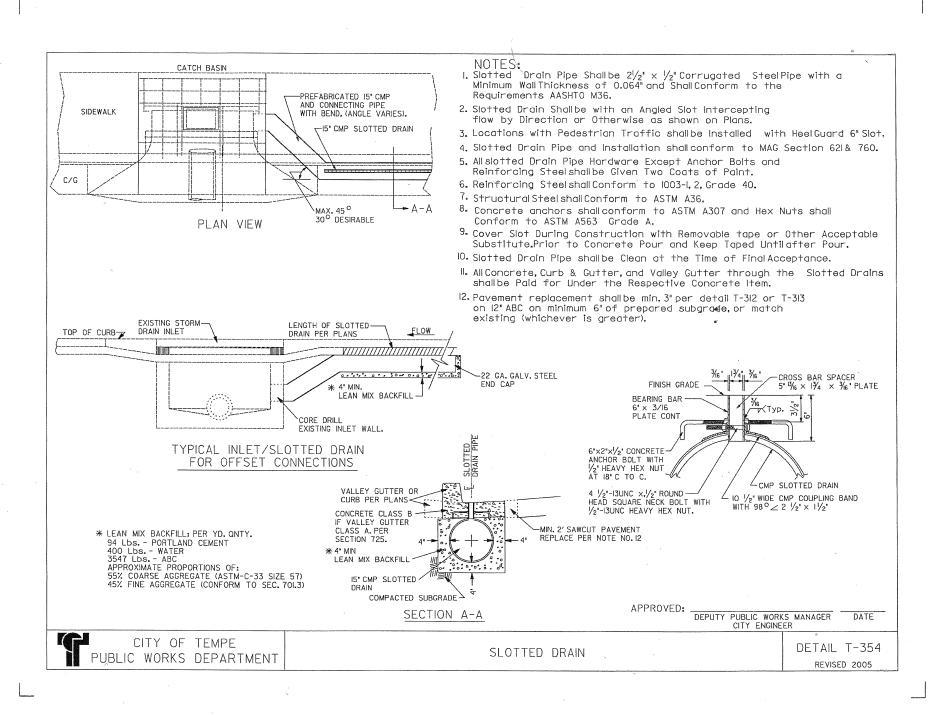
DETAIL NO.

2285

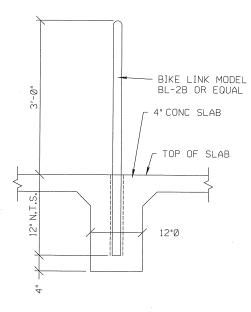
City of Scottsdale Standard Details

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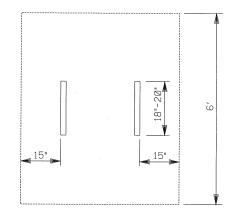
DOUBLE BICYCLE RACK

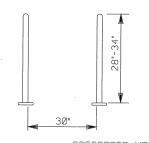


NOTE: ALTERNATIVE METHOD OF ANCHORING BIKE RACK IS SHOWN BELOW.



BICYCLE RACK CONNECTION DETAIL







PREFERRED METHOD OF ANCHORING BIKE RACK IS TO ORDER BIKE RACK WITH STEEL FLANGE & RAMSET BOLTS TO CONCRETE SLAB PER MANUFATURER'S INSTRUCTIONS.

BICYCLE RACK

NOTE:

- 1. MAINTAIN 6'LONG USUABLE SPACE FOR BICYCLE.
- 2. MAINTAIN 30" BETWEEN EACH RACK.
- 3. MAINTAIN 15" CLEAR DISTANCE BEYOND RACK.

APPROVED:

ORIGINAL SIGNATURE ON FILE
AT THE CITY OF TEMPE

DEPUTY PUBLIC WORKS DIRECTOR

DATE

APPROVED:

CITY ENGINEER

DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

BICYCLE RACK DETAIL

DETAIL T-578